Düsseldorf Local Division
UPC_CFI_466/2025 | UPC_CFI_869/2025

Decision

of the Court of First Instance of the Unified Patent Court
delivered on 5 November 2026
concerning EP 3 805 415

Unofficial English translation of the German-language decision. Paragraph numbering follows the original. Translator's notes appear in square brackets.

Headnotes

[The decision contains German headnotes followed by the Court's own English headnotes. The Court's English version is reproduced below.]

1. To establish prior public use, it must be proven that all features of the invention were publicly disclosed and accessible to third parties before the priority date, with no confidentiality agreement in place. The party referring to the prior public use is responsible for providing the necessary evidence.

2. As the circumstances surrounding an alleged public prior use usually lie entirely within the control of the party invoking it, strict requirements must be imposed on the evidence provided. This must include full documentation of what was made available, to whom, when, and under what circumstances. In particular, it is essential to ensure that the sample material examined can be attributed with sufficient certainty to the product actually supplied (proof of identity).

3. The disclosure of a broader range of numbers does not, as a matter of course, preempt a narrower, claimed range falling within it to the detriment of novelty. This is particularly true where several parameters must be met cumulatively and the prior art does not consider some of the claimed ranges.

Keywords: Prior public use; burden of presentation and proof; novelty examination for ranges of numbers

Parties

Claimant:

Dai Nippon Printing Co., Ltd., represented by its management, in turn represented by its Chairman, Mr Yoshinari Kitajima, 1-1-1, Ichigaya-Kagacho, Shinjuku-ku, Tokyo 162-8001, Japan

Represented by: Rechtsanwälte Dr Soenke Fock, Thorben Strich, Jan-Caspar Maiers and Alex-Christian Lesch, Wildanger Kehrwald Graf von Schwerin & Partner mbB Rechtsanwälte, Couvenstraße 8, 40211 Düsseldorf, Germany; and Patentanwälte Dr.-Ing. Jochen Kapfenberger, Georg Tully and Dr Frederik Tenholt, Cohausz & Florack Patent- und Rechtsanwälte PartG mbB, Bleichstraße 14, 40211 Düsseldorf, Germany

Electronic address for service: DNP-Zapp-EP415@wildanger.eu

Defendants:

1. Zapp AG, represented by its Executive Board, Dr Stefan Seng (Chairman of the Executive Board) and Daniela Scheidsteger, Letmather Straße 69, 58239 Schwerte, Germany

2. Zapp Precision Metals GmbH, represented by its managing directors Malte Edward Dotzel, Edo Ollermann, Dr Evelin Ratte and Britta Van Beurden, Letmather Straße 69, 58239 Schwerte, Germany

Defendants 1 and 2 represented by: Rechtsanwälte Holger Stratmann, Dr Henrik Vocke and Philipp Zambelli, HOFFMANN EITLE Patent- und Rechtsanwaltsgesellschaft mbB, Arabellastraße 30, 81925 Munich, Germany

Patent in suit: European Patent No. 3 805 415

Panel: Panel 1 of the Düsseldorf Local Division

Judges: This decision was delivered with the participation of Presiding Judge Thomas, legally qualified judge Dr Schumacher, legally qualified judge Dr Zhilova as judge-rapporteur, and technically qualified judge Parrini.

Language of proceedings: German

Subject matter: Infringement action and counterclaim for revocation

Oral hearing: 17 September 2026

Summary of the facts

1. The Claimant brings proceedings against the Defendants for infringement of European bundle patent EP 3 805 415 B1 (submitted as Exhibit WKS VK1; hereinafter: the patent in suit).

2. The Claimant is the proprietor of the patent in suit, which was filed on 8 October 2020 in English as the language of proceedings, claiming priority from Japanese application JP 2019185424 of 8 October 2019. Mention of the grant was published on 30 November 2022. The patent in suit is currently in force in, among other states, Germany and France.

3. The patent in suit is entitled "Metal plate for manufacturing deposition mask, method for manufacturing metal plate, deposition mask and method for manufacturing deposition mask".

4. It comprises a total of 15 claims, which can be categorised as follows:

Claims 1–7: metal plate

Claims 8–13: method for manufacturing the metal plate

Claim 14: deposition mask

Claim 15: method for manufacturing the deposition mask

5. Claim 1 of the patent in suit reads as follows:

'A metal plate used for manufacturing a deposition mask, the metal plate including a first surface and a second surface positioned on the opposite side of the first surface, and containing iron and nickel, the metal plate comprising:

particles containing as a main component an element other than iron and nickel, the main component being an element having the highest weight% of elements contained in the particles, wherein:

in a sample including the first surface and the second surface of the metal plate, the following conditions (1), (2) and (5) regarding the particles are satisfied:

(1) the number of the particles having an equivalent circle diameter of 1 μm or more is 50 or more and 3000 or less per 1 mm^3 in the sample; and

(2) the number of the particles having an equivalent circle diameter of 3 μm or more is 50 or less per 1 mm^3 in the sample, and

(5) the number of the particles having an equivalent circle diameter of 5 μm or more is 20 or less per 1 mm^3 in the sample, wherein

the number of the particles per 1 mm^3 in the sample is determined as described in the description, and wherein a first ratio of the metal plate is 70% or more;

the first ratio is a ratio of a first quantity to a total quantity;

the total quantity is the number of the particles per 1 mm³ in the sample, the particles having an equivalent circle diameter of 1 µm or more; and

the first quantity is the number of the particles per 1 mm³ in the sample, the particles having an equivalent circle diameter of 1 µm or more and less than 3 µm.'

6. In the registered German translation, claim 1 reads as follows:

[The German translation of claim 1 is set out in the original. It corresponds to the English claim wording at para 5 and is not reproduced here.]

7. As regards the wording of dependent claims 2 to 7, which the Claimant asserts only as "in particular if" requests, reference is made to the patent specification.

8. The Defendants develop, manufacture and sell, under the umbrella designation "Zapp SuperClean INVAR 36", metal plates of various thicknesses which are used by customers to manufacture deposition masks, which are in turn used in the manufacture of OLED displays (organic light emitting diodes).

9. By its action, the Claimant attacks corresponding products with thicknesses of 25 µm and 30 µm (hereinafter: the attacked embodiments).

10. The metal plates of the type "SuperClean Invar 36" shown in the images below were delivered to the Claimant by Defendant 2 on 5 June 2023:

[Photographs of rolls of "Zapp SuperClean Invar 36" 25 µm and 30 µm – see p. 6 of the original.]

11. Each delivery was accompanied by the Defendants' inspection certificates setting out the specific product properties of the metal plates delivered. As to the content of those certificates, reference is made to Exhibits WKS VK 5a (25 µm) and WKS 5b (30 µm).

12. In addition, the Claimant instructed Eurofins EAG Laboratories ("Eurofins"), an institute based in the Netherlands, to examine the attacked embodiments. As to the performance and results of those examinations, reference is made to Exhibits WKS VK 8a to WKS 13 and to the notarial deeds submitted as Exhibits WKS VK 7a to WKS VK 7i, including the certified copies of the Japanese originals submitted.

Parties' requests

Infringement action

13. The Claimant requests that the Court:

I. order the Defendants

1. to refrain from

a) metal plates used for manufacturing a deposition mask, which include a first surface and a second surface positioned on the opposite side of the first surface, and which contain iron and nickel, the metal plates comprising:

particles containing as a main component an element other than iron and nickel, the main component being an element having the highest weight% of the elements contained in the particles, wherein:

in a sample including the first surface and the second surface of the metal plate, the following conditions (1), (2) and (5) regarding the particles are satisfied:

(1) the number of particles having an equivalent circle diameter of 1 µm or more is 50 or more and 3000 or less per 1 mm³ in the sample; and

(2) the number of particles having an equivalent circle diameter of 3 µm or more is 50 or less per 1 mm³ in the sample, and

(5) the number of particles having an equivalent circle diameter of 5 µm or more is 20 or less per 1 mm³ in the sample,

wherein the number of particles per 1 mm³ in the sample is determined as set out in [0123] to [0156] of the description of patent EP 3 805 415 B1, the grant of which was published on 30 November 2022, and wherein

a first ratio of the metal plate is 70% or more;

the first ratio is a ratio of a first quantity to a total quantity;

the total quantity is the number of particles per 1 mm³ in the sample, the particles having an equivalent circle diameter of 1 µm or more; and the first quantity is the number of particles per 1 mm³ in the sample, the particles having an equivalent circle diameter of 1 µm or more and less than 3 µm,

in the territory of the Federal Republic of Germany and the French Republic, manufacturing, offering, placing on the market or using such metal plates, or importing or possessing them for those purposes;

(direct infringement of claim 1)

2. to recall the infringing devices referred to in I.1, by informing the third parties from whom the infringing devices are to be recalled that this Court has found that the devices infringe European Patent EP 3 805 415 B1, the Defendants being required to give the third parties a binding undertaking to reimburse the costs incurred, to bear the packaging and transport costs, to reimburse the customs and storage costs associated with the return of the products and to take the products back, the Claimant being provided – at the Defendants' option – either with a specimen of the recall letters together with a list of the addressees with names and postal addresses, or with a copy of all recall letters;

3. to remove the infringing devices referred to in I.1 definitively from the channels of commerce, by the Defendants requesting commercial customers, with reference to the fact that this Court has found that the products infringe European Patent EP 3 805 415 B1, to cancel all orders relating to the devices referred to in I.1, and to provide the Court and the Claimant, within 30 days of service of the notification within the meaning of R. 118(8), first sentence, RoP and, where applicable, of the certified translation, with written proof of the measure taken;

4. to hand over each of the infringing devices referred to in I.1 which is in the Defendants' direct or indirect possession or ownership to a bailiff to be designated by the Claimant for the purpose of destruction at the Defendants' expense;

5. to provide the Claimant with information, in a statement structured by each month of the calendar year and by infringing product, on the extent to which they (the Defendants) have committed the acts referred to in I.1 since 30 November 2022 in the territory of the Federal Republic of Germany and the French Republic, stating

a) the origin and distribution channels of the devices referred to in I.1, naming

(i) the names and addresses of the manufacturers, producers, distributors, suppliers and other previous holders, and

(ii) the names and addresses of the commercial customers and of the points of sale for which the devices were intended;

b) the quantities produced, manufactured, delivered, received or ordered, and the prices paid for the devices in question;

c) the identity of all persons involved in the manufacture or distribution of the devices referred to in I.1;

copies of the relevant purchase documents (namely invoices, alternatively delivery notes) to be provided as evidence of the information, details requiring confidentiality outside the data subject to disclosure being permitted to be redacted, and the information including the purchase documents to be transmitted at least also in an electronic form capable of being processed by computer;

6. to render accounts to the Claimant, as evidence of the information provided under I.5 together with information on the profit made, of the extent to which they (the Defendants) have committed the acts referred to in I.1 since 30 November 2022 in the territory of the Federal Republic of Germany and the French Republic, stating

a) the individual deliveries, broken down by delivery quantities, times, prices and type designations, and the names and addresses of the customers,

b) the individual offers, broken down by offer quantities, times, prices and type designations, and the names and addresses of the offerees,

c) the advertising carried out, broken down by advertising medium, its circulation, period and area of distribution and, for internet advertising, the internet addresses, periods of placement and access figures,

d) the production costs broken down by individual cost factors, and the profit made,

the statement containing the accounting data to be transmitted at least also in an electronic form capable of being processed by computer, copies of the relevant purchase documents (namely invoices, alternatively delivery notes) to be provided as evidence of the information, details requiring confidentiality outside the data subject to disclosure being permitted to be redacted,

the Defendants being entitled, at their option, to disclose the names and addresses of the non-commercial customers and of the offerees, instead of to the Claimant, to a sworn chartered accountant designated by the Claimant, bound to confidentiality towards it and resident in a Contracting Member State of the UPCA, provided that the Defendants bear the accountant's costs and authorise and oblige the accountant to inform the Claimant, upon specific request, whether a particular delivery, customer or offeree is included in the statement;

II. declare that the Defendants are jointly and severally liable to compensate the Claimant for all damage which it has suffered and will suffer as a result of the acts referred to in I.1 committed since 30.11.2022 in the territory of the Federal Republic of Germany and the French Republic;

III. order the Defendants,

1. insofar as they do not fully comply with the orders under I.1 after service of the decision,

– for each day of delay in complying with the prohibition on manufacturing, offering, using, importing or possessing, to pay to the Court a repeated penalty payment of at least EUR 10,000, and

– for each product within I.1 placed on the market, to pay to the Court a repeated penalty payment of at least EUR 7,500 per roll;

2. insofar as they do not fully comply with the orders under I.2, I.3 and I.4 after service of the decision, to pay to the Court a repeated penalty payment of at least EUR 10,000 for each day of delay;

3. insofar as they do not fully comply with the orders under I.5 and I.6 within three weeks of service of the decision, to pay to the Court a repeated penalty payment of at least EUR 5,000 for each day of delay;

in the alternative: in the event that enforcement of the decision is made conditional on the provision of security, to make the penalty payments to be set under III conditional on proof that the Claimant has provided the security;

IV. order the Defendants to bear the costs of the proceedings.

14. As to the wording of the "in particular if" requests, reference is made to the Statement of Claim.

15. The Defendants request that the Court:

I. dismiss the action;

II. order the Claimant to bear the costs of the infringement proceedings.

Counterclaim for revocation

16. The Defendants request that the Court revoke European Patent EP 3 805 415 B1 to the extent of claims 1 to 7.

17. The Claimant requests that the counterclaim for revocation be dismissed.

Applications to amend the patent in suit

18. The Claimant requests, in the alternative – in the event that the Local Division does not grant the main request – by way of an application to amend the patent under Art. 65 UPCA and R. 30(1) RoP on behalf of the defendant to the counterclaim,

I. that the patent in suit be maintained in limited form on the basis of the attached sets of claims according to Auxiliary Requests 1 to 29 (in the order stated) for the Contracting States Germany and France;

II. that the counterclaim otherwise be dismissed.

19. The Defendants request, in the alternative, that European Patent EP 3 805 415 B1 be revoked to a limited extent in accordance with one of Auxiliary Requests 1 to 29.

Points of fact and law in dispute

Capacity of Defendant 1 to be sued

20. The Defendants dispute that Defendant 1 is the correct defendant, on the basis that Zapp AG is a pure holding company which is not involved in the operating business of the Zapp group, i.e. in the purchasing, manufacture and sale of metal goods. Although the attacked embodiments are offered on Defendant 1's website, there is no facility for ordering them directly via the website.

21. The Claimant takes the view that Defendant 1's conduct is a classic case of offering in the patent-law sense in online commerce. Whether Defendant 1's website allows the infringing products to be ordered directly via the website is irrelevant.

Infringement

22. The Defendants do not dispute that the "SuperClean Invar 36" foils they offer have the same features as the invention according to claim 1. They nonetheless deny the alleged patent infringement and rely on a right of private prior use. They further argue that the measurements ought to have been carried out on finished deposition masks rather than on metal plates.

Counterclaim for revocation

23. The counterclaim for revocation is based on the following grounds: insufficiency of disclosure, lack of novelty and lack of inventive step.

24. As regards lack of novelty, the Claimant [sic – sense requires "the Defendants"] relies on prior public use. In addition, the novelty attack is based on the following documents:

D1: JP 2000239802 (Exhibit HE 102a)

D2: JP 2019-26900 A (Exhibit HE 104a)

D3: EP 3 514 249 A1 (Exhibit HE 105a)

D4: JPH05214492A (Exhibit HE 106a).

25. The Defendants based their case of lack of inventive step on each of documents D1, D2 and D3, without relying on any combination of those documents with one another or with other prior art documents.

Key procedural steps

Further factual submissions

26. By written submission of 21 January 2026 (Rejoinder in the infringement proceedings, Reply to the Defence to the counterclaim for revocation and Defence to the application to amend the patent), the Defendants put forward new factual submissions in support of their alleged right of private prior use in Germany and France (Exhibits HE 137, HE 138, HE 139, HE 140, HE 144 and HE 145, which were classified as confidential within the meaning of Art. 58 UPCA, R. 262.2 RoP by order of 18 February 2026).

27. The Claimant objected to this as late-filed under R. 9.2 RoP; by order of the judge-rapporteur of 9 February 2026, that objection was referred to the full panel for decision after the oral hearing. The Claimant commented on the new factual submissions (sur-rejoinder) in its Rejoinder in the revocation proceedings of 12 March 2026.

28. By written submission of 13 April 2026 (Rejoinder to the Reply to the Defence to the application to amend), the Defendants put forward further factual submissions on the interpretation of the patent in suit and in support of the alleged prior public use:

– Section B. concerning ascent rates and ChatGPT calculations, paras 15–20,

– Section C.I.1. concerning raw data and redactions, paras 24–28, incl. Exhibit HE 158,

– Section C.I.2.a)(i) concerning "no express confidentiality agreement with Ever-Display Optronics", paras 39–42, incl. Exhibit HE 159,

– Section C.I.2.a)(iii) concerning material numbers, paras 46–50,

– Section C.I.2.aa)(ii) concerning "special stress relieved vs entspannt [stress-relieved]", para 58,

– Section C.I.2.ab)(i) concerning the "reflecting" surface, para 64,

– Section C.I.2.ab)(ii) concerning material number, para 66,

– Section C.I.2.ab)(iii) concerning weight, paras 70–72,

– Section C.I.2.ab)(iv) concerning storage locations, para 74,

– Section C.I.2.ac) concerning the "reflecting" surface and "special stress relieved", paras 77–78,

– Section C.I.2.b) concerning Invar foil for production order number, paras 84–85,

– Section C.I.2.bb) concerning deliveries to LG Innotek Co. Ltd., paras 104–106, incl. Exhibit HE 160,

– Section C.I.3.a) concerning "analysis results plausible", paras 109–113,

– Section C.I.3.b) concerning "measurement results reliable", paras 115–121, incl. Exhibit HE 158,

– Section C.I.3.c) concerning "statistical significance of the analysis results", paras 123–130, incl. Exhibit HE 161,

– Section C.II.1. concerning feature 1, paras 135–140, incl. Exhibit HE 162,

– Section C.II.2. concerning feature group 3, paras 144–149.

29. The Claimant opposed the admission of these further factual submissions by written submission of 19 May 2026 (admitted fourth-round submission [Quadruplik] in the counterclaim for revocation) and filed further expert reports (Exhibits WKS NWK 6, opinion of Prof. [redacted], and WKS NWK 7, opinion of Prof. [redacted]).

Additional revocation attack

30. In the same written submission of 21 January 2026, the Defendants advanced, for the first time, arguments on lack of novelty over document D5 (JPH04354853A, Exhibit HE 107). Although D5 had been filed as prior art with the counterclaim for revocation, no arguments on lack of novelty and/or inventive step had been advanced on its basis at that stage.

31. The Claimant opposed the admission of this additional revocation attack by written submission of 12 March 2026.

Further auxiliary requests in the revocation proceedings

32. By written submission of 12 March 2026, the Claimant filed newly submitted Auxiliary Requests 1a to 28a and 1b to 28b (Exhibits WKS H 4a and WKS H 5a).

33. The Defendants opposed the admission of those further auxiliary requests by written submission of 13 April 2026 and request that they be rejected as late-filed.

34. The panel deferred its decision on the admission of further Auxiliary Requests 1a to 28a and 1b to 28b.

Out-of-court agreement on recoverable costs

35. After the oral hearing, the parties reached an out-of-court agreement on the recoverable costs (Claimant's submission of 29 September 2026; Defendants' submission of 7 October 2026).

36. The parties requested that this agreement be incorporated into the costs order of the final decision of the Düsseldorf Local Division.

37. Under the agreement, the recoverable costs of the first-instance proceedings (representation costs and all other costs that may be recoverable, including court fees and expert, translation, travel and witness costs) amount to a total of EUR 344,000.00, of which EUR 172,000.00 each is attributable to the infringement action and to the counterclaim for revocation.

38. Interest accrues on the amount to be reimbursed at 5 percentage points above the base rate under § 247 BGB [German Civil Code]. Interest runs from the day following the expiry of four weeks after service of the decision of the Düsseldorf Local Division on the merits on the party obliged to reimburse (due date); R. 300 RoP applies accordingly to the calculation of the four-week period.

39. The parties mutually waive any application under R. 151 RoP, any application for interim reimbursement of costs under R. 118.5 and 150.2 RoP, and any applications under R. 152 RoP.

Grounds for the decision

40. The admissible infringement action is also well founded on the merits. By contrast, the counterclaim for revocation is admissible but unfounded.

A. Rejection of late submissions

41. The Court rejects as late-filed the factual submissions newly introduced by written submission of 21 January 2026 (Rejoinder in the infringement proceedings, Reply to the Defence to the counterclaim for revocation and Defence to the application to amend the patent) and by written submission of 13 April 2026 (Rejoinder on the application to amend), as well as Exhibits HE 137, HE 138, HE 139, HE 140, HE 144 and HE 145 (cf. paras 20 and 22 of this decision).

42. Under R. 9.2 RoP, the Court may disregard any step, fact, evidence or argument which a party has not taken or submitted within the time limit set. In deciding this, the Court has discretion, taking into account the particular circumstances of the case, including the reasons why the party had not already submitted the new facts and arguments, and the procedural opportunities for the opposing party to respond to the new submissions. This is consistent with the principles established by the Court of Appeal (decision of 21 November 2024, UPC_CoA_456/2024), according to which the parties are obliged to set out their arguments as early as possible in the proceedings, but certain new arguments may nonetheless be admitted into the proceedings.

43. Applying these principles to the present case, the documents referred to above were submitted late by the Defendants and, at least to the Claimant's detriment, cannot be taken into account in the present case.

44. As is apparent from their content, the documents were already in the Defendants' possession before the infringement action was filed. They therefore had the opportunity to introduce them, together with the factual submissions based on them, into the proceedings with their Statement of Defence and the counterclaim for revocation. The Defendants have been unable to set out any comprehensible reasons why they failed to do so at that time. Nor are any such reasons apparent.

45. By contrast, R. 9.2 RoP does not preclude the use of the late-filed documents in favour of the Claimant as the opposing party. It is a protective provision for the benefit of the opposing party. In addition, the Claimant in the present case also had the opportunity to comment on the new submissions.

46. In any event, taking into account the arguments and documents submitted late by the Defendants would not lead to a different assessment on the merits.

B. Admissibility of the infringement action and the counterclaim for revocation

I. Infringement action

47. The infringement action is admissible.

48. The principles of the international jurisdiction of the UPC were clarified by the Court of Appeal in its decision of 2 June 2026 (UPC_CoA_312/2025, 333/2025, 880/2025, 882/2025, Fujifilm v Kodak, headnotes 5–18).

49. To establish international jurisdiction under Art. 4(1) and Art. 63(1) of Regulation (EU) No 1215/2012 (Brussels Ia Regulation), it suffices to show that the defendant is domiciled in the EU Member State of the court seised. In the case of a court common to several EU Member States, it accordingly suffices under Art. 71b(1) Brussels Ia Regulation – as in the present case – to show that the defendant has its seat in one of the Member States that established the common court.

50. In addition, the UPC's international jurisdiction over all Defendants follows from Art. 31 UPCA, Art. 7(2) Brussels Ia Regulation. The Claimant alleges acts of infringement by the Defendants in Germany and France, and thus in UPC Contracting Member States.

51. The local competence of the Düsseldorf Local Division follows from Art. 33(1)(a) UPCA. The Claimant conclusively alleges acts of infringement in Germany. The power of adjudication of the Düsseldorf Local Division established by its competence also extends to acts of infringement in other UPC Contracting Member States, here namely France. Furthermore, internal competence within the UPC follows from R. 19.7 RoP, the Defendants not having lodged a Preliminary objection under R. 19 RoP.

II. Counterclaim for revocation

52. There are likewise no concerns as to the admissibility of the counterclaim for revocation.

53. Under Art. 32(1)(e) UPCA, the UPC has exclusive competence for counterclaims for revocation of (European) patents. As a court common to the Member States party to the UPCA, the UPC has international jurisdiction over the present counterclaim under Art. 24(4), 71a(2)(a) and 71b(1) of the Brussels Ia Regulation.

54. Local competence extends to the counterclaim for revocation (Art. 33(3)(a) UPCA) insofar as it is admissible in respect of the German and French parts of the bundle patent.

C. Skilled person

55. The Claimant considers the skilled person for the purposes of interpreting the patent in suit and assessing its validity to be an engineer holding at least a degree from a university of applied sciences [Fachhochschule] in metallurgy, with several years' professional experience in the field of manufacturing metal plates for the production of deposition masks.

56. As the Defendants have not put forward any different definition of the skilled person and there are no other concerns regarding the Claimant's proposal, the panel sees no reason to depart from it.

57. The panel additionally assumes that this skilled person has basic knowledge of the characterisation of non-metallic inclusions (extraction methods, SEM/EDX particle analysis) or, in that respect, calls upon a correspondingly specialised person skilled in materials analysis.

D. Scope of protection of the patent in suit

58. As regards the scope of protection of the patent in suit, the following applies:

I. Subject matter of the patent in suit

59. The patent in suit relates to a metal plate for manufacturing a deposition mask (claims 1–7), a method for manufacturing the metal plate (claims 8–13), a deposition mask (claim 14) and a method for manufacturing the deposition mask (claim 15) (para [0001]).

60. In the prior art, as the patent specification goes on to explain in paras [0002] to [0005], OLED technology (organic light emitting diodes) is applicable to high-resolution display devices such as televisions, computer monitors, tablets, smartphones, smartwatches and other electronic devices. OLED display devices are characterised by their excellent response speed and/or low energy consumption. The deposition method is known as a method for producing the pixels of such a display device. In this method, the material forming the pixels is applied to a substrate by deposition. For this purpose, a deposition mask with openings (through-holes) is prepared in advance. Organic and/or inorganic material is then deposited in a deposition apparatus while the deposition mask is in close contact with the substrate, so that the material forms on the substrate.

61. The skilled person knows that an OLED display consists of several layers. A light-emitting layer of organic material is arranged between a transparent electrode and a metal electrode facing the transparent electrode. The high-precision openings ("through-holes"), arranged in a pattern desired by the OLED manufacturer, in the deposition masks used in manufacturing the displays determine the position and shape of the light-emitting layers. These are applied to a substrate and thus form the individual pixels of the OLED display. Each pixel is made up of at least three sub-pixels consisting of the three primary colours of the additive colour system, red, green and blue (RGB). By combining these three primary colours at different intensities, practically all visible colours can be produced. The layer system is closed off on both sides by carrier films or thin glass panes; see the illustration below (Statement of Claim, para 11):

[Illustration of OLED layer structure (glass, anode, organic emitter, cathode, polariser) – see p. 17 of the original.]

62. As the patent specification further explains, JP5382259B discloses a method of forming openings in a metal plate by etching the metal plate, as a method for manufacturing a deposition mask (para [0005]).

63. The metal plate is manufactured in the following steps:

1. melting iron and nickel to obtain a homogeneous alloy;
2. cooling;
3. rolling to obtain an extremely thin metal foil;
4. applying a resist layer;
5. etching – introducing microscopically small holes into the foil.

The organic material is later applied to the display substrate through these holes by means of an evaporation process.

64. The metal plate is a component of the deposition mask (cf. para [0023]); on the one hand it provides the mask's strength, and on the other it serves to shape the openings precisely. The metal plate (thin metal foil) generally contains iron and nickel (an iron-nickel alloy). However, it may also contain particles (inclusions) (64d) whose main component is an element other than iron and nickel (cf. para [0007]). The particles (other than iron and nickel) arise, for example, from the addition of additives such as aluminium and silicon to remove impurities during the melting process in producing the base metal to be rolled (cf. para [0051]). Other particles may, however, also be present, for example magnesium, phosphorus, sulphur, chromium or zirconium, or a compound containing these elements. The compound is, for example, an oxide, a sulphide, a carbide, a nitride, an intermetallic compound, etc. (cf. para [0054]). These particles may be located at the surface of the alloy but also within it (cf. paras [0055] and [0056] and Figs. 6 and 7 of the patent in suit).

[Figs. 6 and 7 of the patent in suit – see p. 18 of the original.]

65. So that the base metal can later be processed further into deposition masks, after cooling it must be rolled ever thinner through several reduction rolls. Rolling produces metal plates of extremely low thickness, for example between 10 µm and 70 µm. The metal plate used to manufacture the deposition mask may be sold and/or transported in the form of a coil wound around a core (cf. para [0043]).

66. The problem underlying the invention is that the numerous particles contained in the metal plate tend to adversely affect the shape accuracy of the through-openings (cf. [0050]). The remaining particles, which consist neither of iron nor of nickel, prevent the exact formation of through-holes in the metal plate by etching. The more precise the openings in the metal plate, the more precise the openings of the deposition mask, which improves the quality of the pixels, which then do not intermix.

67. The object of the invention expressly stated in para [0006] is to improve the accuracy of the shape of a through-hole formed in a metal plate.

68. On the basis of numerous investigations by the inventors (cf. paras [0052], [0068], [0069]–[0080], [0090]–[0098], [0102], Figs. 12 and 13), it was found that the accuracy of the openings in the metal plate depends on the size and number of the particles.

[Figs. 12 and 13 of the patent in suit – see p. 19 of the original.]

69. To achieve this object, the patent in suit proposes in claim 1 a metal plate with a specific particle distribution (cf. para [0007]). The patent in suit provides for three different relationships between particle size and number, as well as various ratios to the total quantity. The particle numbers must not exceed the specified values in order to achieve the technical effect of ensuring pixel density and brightness and image quality (cf. para [0008]).

70. The features of claim 1 can be broken down as follows:

Feature	Wording
1	Metal plate used for manufacturing a deposition mask.
2	The metal plate
2.1	includes a first surface and
2.2	a second surface,
2.2.1	positioned on the opposite side of the first surface, and
2.3	contains iron and nickel.
3	The metal plate comprises particles containing as a main component an element other than iron and nickel,
3.1	the main component being an element having the highest weight% of the elements contained in the particles,
3.1.1	wherein in a sample including the first surface and the second surface of the metal plate, the following conditions (1), (2) and (5) regarding the particles are satisfied:
3.1.1.1	(1) the number of particles having an equivalent circle diameter of 1 μm or more is 50 or more and 3000 or less per 1 mm^3 in the sample; and
3.1.1.2	(2) the number of particles having an equivalent circle diameter of 3 μm or more is 50 or less per 1 mm^3 in the sample, and
3.1.1.3	(5) the number of particles having an equivalent circle diameter of 5 μm or more is 20 or less per 1 mm^3 in the sample,
3.1.2	wherein the number of particles per 1 mm^3 in the sample is determined as described in the description;
3.2	and wherein a first ratio of the metal plate is 70% or more,
3.2.1	the first ratio being a ratio of a first quantity to a total quantity;
3.2.1.1	the total quantity is the number of particles per 1 mm^3 in the sample having an equivalent circle diameter of 1 μm or more, and
3.2.1.2	the first quantity is the number of particles per 1 mm^3 in the sample having an equivalent circle diameter of 1 μm or more and less than 3 μm.

II. Interpretation

1. Principles of interpretation

71. Under Art. 69 EPC in conjunction with the Protocol on its Interpretation, the patent claim is not only the starting point but the decisive basis for determining the scope of protection of a European patent. The interpretation of a patent claim does not depend solely on its precise wording in the linguistic sense. Rather, the description and drawings must always be used as explanatory aids

for the interpretation of the patent claim, and not merely to resolve any ambiguities in the claim. This does not, however, mean that the claim serves merely as a guideline and that its subject matter also extends to what, after examination of the description and drawings, appears to be what the patent proprietor sought to protect. In applying these principles, fair protection for the patent proprietor is to be combined with a reasonable degree of legal certainty for third parties. The claim is to be interpreted from the perspective of the skilled person. These principles for interpreting a patent claim apply equally to the assessment of infringement and of validity of a European patent (UPC_CoA_335/2023, order of 26 February 2024, headnote 2 and p. 26 ff. – 10x Genomics v Nanostring; UPC_CoA_1/2024, order of 13 May 2024, para 26 – VusionGroup v Hanshow; UPC_CoA_182/2024, order of 25 September 2024, para 82 – Mammut v Ortovox; UPC_CoA_528/2024, decision of 25 November 2025, para 39 – Amgen v Sanofi; UPC_CoA_464/2024, decision of 25 November 2025, para 50 – Meril v Edwards).

2. Interpretation in the present case

72. With that preface, the following applies as regards the scope of protection of the patent in suit:

a. Claim structure

73. The metal plate for manufacturing a deposition mask protected by claim 1 (feature 1) is characterised by two essential groups of features, namely the general construction from an iron-nickel alloy with two surfaces (feature group 2) and specific requirements regarding the particles containing as a main component an element other than iron and nickel (feature group 3).

74. While claim 1 is silent on the more detailed technical design of the metal plate for manufacturing a deposition mask (feature 1 and feature group 2), thereby leaving this to the discretion of the skilled person, it deals in depth with the quality of the metal plate as regards inclusions in the iron-nickel alloy (feature group 3).

75. The features of group 2 are undisputed between the parties. Owing to their intended use, metal plates according to the invention consist of nickel-iron alloys (cf. para [0027]). The upper side and lower side of the metal plate (64) are referred to as the first and second surfaces (cf. patent in suit, para [0020] with reference to Fig. 1, Fig. 38).

76. Feature 1 and feature group 3 form the core of the dispute and therefore require more detailed explanation.

b. Metal plate used for manufacturing a deposition mask ("metal plate used for manufacturing a deposition mask", feature 1)

77. The parties disagree as to whether claim 1 protects a metal plate which need only be suitable for manufacturing a deposition mask, or whether the metal plate must be used to manufacture a deposition mask.

78. Formulated more abstractly, the question is therefore whether claim 1 is a product claim or a use claim.

79. The Defendants are right that the wording of the claim in the authentic language of grant ("used for"), considered in isolation, does admit of the interpretation that the metal plate must actually be used in the sense stated.

80. That is not compelling, however. It appears equally conceivable to understand the words "used for" to mean that what is protected is not just any metal plate having the particle distribution described in detail in feature group 3, but one which, by virtue of its other properties, must be suitable for use as a deposition mask. For that purpose, in particular, it must not exceed a certain thickness.

81. As always, the skilled person does not stop at a mere consideration of the wording. Rather, they consider the claim as a whole, having regard to the description. Nor is a purely linguistic-philological approach decisive.

82. Turning to the description on that basis, the skilled person will notice that para [0001] introduces the invention by stating that embodiments of the invention relate to a metal plate for manufacturing a deposition mask ("… for manufacturing of a deposition mask"). This supports understanding claim 1 as a product claim rather than a mere use claim. The passages in the description cited by the Defendants for the most part merely repeat the claim wording ("used for"). The passage at para [0214], by contrast, concerns the deposition mask used for manufacturing a display. The Claimant rightly pointed this out.

83. Since the claim wording at any rate does not compellingly point to a use claim, and there is nothing in the description that compels the restrictive understanding of the scope of protection advocated by the Defendants, the key to answering the question of the extent of the scope of protection lies in the nature of product claims and use claims.

84. In the case of a product claim, the protected product enjoys absolute product protection. It is therefore protected irrespective of its specific use. In the case of a use claim, by contrast, what is protected is the use of a (known) substance or (known) thing for a new inventive purpose. The core of the invention is thus a new purpose for a product which is known per se. Applied to claim 1, this would mean that the metal plate, with all its spatial-physical features as stated in claim 1, was known. The invention would instead lie in the use of this (assumed known) metal plate for deposition masks.

85. However, there is nothing in the patent in suit to indicate that the patent is concerned precisely with the use of a metal plate known per se as a deposition mask. Rather, the patent in suit deals in detail with the technical design of the metal plate (cf., for example, dependent claims 2 to 7 and paras [0051] ff., [0108] ff.).

86. Claim 1 is therefore a product claim. Actual use of the metal plate as a deposition mask is not a prerequisite for implementing the protected technical teaching. Rather, it is sufficient, but also necessary, that the metal plate is objectively suitable for manufacturing a deposition mask by virtue of its characteristics and, in particular, its thickness. A metal plate whose thickness exceeds the maximum required for suitability as a deposition mask would, for example, therefore not fall within the scope of protection.

c. Feature group 3

aa. Basic considerations

87. The inventive concept reflected in feature group 3 consists in reducing the number of particles ever more sharply as particle size increases.

88. Feature 3.1.1 sets three conditions, which must be met cumulatively, regarding the number of particles of a certain diameter within certain limits per unit volume:

Condition	Particle diameter	Number of particles	Unit volume
(1)	≥ 1 µm	50 – 3000	1 mm³
(2)	≥ 3 µm	≤ 50	1 mm³
(5)	≥ 5 µm	≤ 20	1 mm³

89. These conditions are cumulative size classes: particles with an equivalent circle diameter of 5 µm or more are also included in the classes "≥ 3 µm" and "≥ 1 µm". For every real measurement result, therefore, the following necessarily applies: number (≥ 1 µm) ≥ number (≥ 3 µm) ≥ number (≥ 5 µm) ≥ 0. This relationship is relevant to checking the plausibility of the measurement reports submitted.

90. The analytical method for determining the particles is set out in paras [0123] to [0156] of the description of the patent in suit, to which feature 3.1.2 refers.

91. Feature 3.2 requires a proportion of at least 70% of particles between 1 µm and 3 µm in size in the total number of particles larger than 1 µm:

Particles in the 1–3 µm size range / total number of particles ≥ 1 µm ≥ 70%

92. Such a ratio cannot physically exceed 100%.

bb. No unusual parameters

93. The Defendants take the view that feature group 3 defines an unusual parameter within the meaning of the case law of the Boards of Appeal of the European Patent Office (cf. T 555/18 with further references, and Case Law of the Boards of Appeal, section III.G.5.2.2d, https://www.epo.org/de/legal/caselaw/2025/clr_iii_g_5_2_2_d.html). They argued that the parameters used in feature groups 3.1.1, 3.1.2 and 3.2 are not used at all, let alone generally, in the field of metal plates used for manufacturing a deposition mask. The same applies, they say, to the claimed measurement method referred to in feature 3.1.2.

94. Whether and to what extent the UPC follows the case law of the Boards of Appeal on unusual parameters does not need to be decided here. Under that case law, the use of an unusual parameter which makes comparison with the prior art more difficult may, particularly in the novelty assessment, result in doubts operating to the detriment of the patent proprietor or the burden of presentation being partly shifted onto the proprietor.

95. The requirements for this are, at any rate, not met here. On the basis of the Defendants' submissions, it cannot in any event be established that the parameters referred to in feature group 3 are unusual.

96. The Claimant submitted the expert reports of Prof. [redacted] and Prof. [redacted] as Exhibits WKS VK 17b and WKS VK 18m. These contradict the Defendants' assertion. The only document submitted by the Defendants in this regard is an opinion of Prof. [redacted] written in the form of a letter (Exhibit HE 6). Formally, this document does not even meet the requirements for a party expert report laid down in R. 181.1 RoP in conjunction with R. 175 RoP. Moreover, in substance this opinion is not sufficient to persuade the Court of the existence of an "unusual parameter" within the meaning of the EPO case law.

97. Nor is the method for determining particles in metal plates described in paras [0123] to [0156] of the description of the patent in suit, to which feature 3.1.2 refers, unusual.

98. The technique of dissolving metal to determine the composition of inclusions in metal plates has been published on various occasions; see, for example, JP 2000-239802 (D1) and EP 3 514 249 A1 (D3), already submitted by the Defendants as Exhibits HE 102 and HE 105. The measurement method described in the patent in suit is based on this recognised approach. The fact that the particle numbers are stated per unit volume rather than per unit mass (D1, D3) or per area (D2) does not make the parameter unusual: conversion between mass and volume is readily possible via the known density of the alloy.

99. Furthermore, the analyses carried out by Eurofins EAG Laboratories, nanoAnalytics GmbH and the Montanuniversität Leoben also show that institutes specialising in the investigation of material properties, using components customary in such institutes (including measuring beakers, purified water and nitric acid), are able in principle to follow the technical teaching of the patent in suit and carry it out reproducibly. The discrepancies that arose between the laboratories (below, D. II. 1.1 [sic – cross-reference as in original]) are not due to any lack of clarity in the parameter, but to deficiencies in sample identity, sample size and execution in the individual case.

E. Merits of the counterclaim for revocation

100. The counterclaim for revocation is unfounded.

I. Ground of insufficiency of disclosure (Art. 138(1)(b) EPC)

101. The ground of insufficiency of disclosure is not made out.

1. Standard

102. Sufficiency of disclosure is to be assessed on the basis of the patent as a whole, i.e. by reference to the claims, description and drawings, from the perspective of a skilled person with the common general knowledge customary at the filing date or priority date.

103. The decisive question is whether the skilled person is able to reproduce the claimed subject matter on the basis of the patent without inventive effort and without undue burden. An invention is sufficiently disclosed if the patent specification shows the skilled person at least one way – and, in the case of functional features, a technical concept – of carrying out the claimed invention.

104. Where a claim contains one or more functional features, it is not necessary for the disclosure to contain specific instructions on how to achieve every conceivable embodiment within the functional definition(s). Fair protection requires that variants of specifically disclosed embodiments which are equally suitable for achieving the same effect, which could not have been foreseen without the invention, should also be protected by the claim. Consequently, the possible unavailability of some embodiments of a functionally defined claim is irrelevant to sufficiency, as long as the skilled person is able, on the basis of the disclosure, to obtain suitable embodiments within the scope of the claim.

105. A reasonable amount of trial and error does not preclude sufficiency of the invention. The burden of presentation and proof lies with the party asserting that the patent is invalid (UPC_CoA_528/2024 and UPC_CoA_529/2024, decision of 25 November 2025, headnotes 5 to 9 – Amgen v Sanofi).

2. Application to the present case

106. On the basis of these principles, the Defendants' objection of insufficiency is unfounded.

107. According to the Defendants, the skilled person cannot derive the teaching from the disclosure of the patent in suit, because the patent in suit does not contain a single working example that directly reflects the claimed subject matter.

108. That argument is not persuasive.

109. The subject matter of claim 1 is supported by the working examples given in the patent specification, which relate not exclusively to deposition masks that have already been etched but equally to the actual metal plates for manufacturing the deposition masks. Although para [0237] of the patent specification, cited by the Defendants, indicates that a sample for analysing the particle distribution is taken from a deposition mask, the sample is specifically taken from an end portion of the deposition mask which has not previously been etched and therefore corresponds identically to the non-etched metal plate according to the patent for manufacturing the deposition mask. Accordingly, no through-holes are etched into the end portions and no particles are removed from the end portions during manufacture of the deposition mask (cf. para [0220]).

110. The Defendants complained that, according to the letter from Prof. Dr. [redacted], the patent specification on the one hand does not describe any method suitable for obtaining the desired inclusion distribution and, on the other, describes the composition of the base metal only very vaguely. Those objections are irrelevant, if only because claim 1 makes no stipulations at all regarding an inclusion distribution or a specific composition of the base metal. Whereas the base metal denotes a form of the iron-nickel alloy before it is rolled (cf. para [0051]), the metal plate denotes a form of the iron-nickel alloy after it has been hot- or cold-rolled (cf. para [0051], Fig. 6). Processing the base metal may result in changes in the distribution and density of the particles, which is precisely why it is the metal plate as the end product that matters for the invention.

111. As regards the composition of the base metal, claim 1 merely requires that iron and nickel be present. The skilled person can readily comply with that requirement. In addition, the patent specification states that the alloy used may preferably be one with a nickel and cobalt content of between 28 and 38 wt.%, with Invar materials having between 34 and 38 wt.% nickel being particularly preferred, the remainder consisting of iron and unavoidable impurities (cf. para [0028] of the patent specification).

112. The steps of producing an ingot and removing a surface layer from it can be repeated several times in succession until a sufficient number of particles has been removed and a particle density in accordance with the patent has thus been achieved (cf. paras [0166] and [0177] and associated Fig. 37 of the patent specification).

113. In addition to surface treatment of the ingot for manufacturing the metal plate, the subsequent metal plate may also be subjected to surface treatment in order to reduce its particle density further (cf. para [0190] and Fig. 60 of the patent specification).

114. As a result, the patent specification provides the skilled person with specific measures by which they can reduce the particle density step by step in order to produce a metal plate with the particle density specified in feature group 3. The fact that some tests and measurements may be required for this is a reasonable degree of trial and error.

II. Ground of lack of patentability (Art. 138(1)(a) EPC)

115. On the basis of the Defendants' submissions, a lack of patentability of claim 1 cannot be established.

1. Novelty

116. The Defendants' novelty attack fails.

a. Standard

117. An invention is considered new if it does not form part of the state of the art. Assessing novelty within the meaning of Art. 54(1) EPC requires determination of the entire content of the prior publication. What matters is whether the subject matter of the patent in suit, with all its features, is directly and unambiguously disclosed in the citation (UPC_CoA_182/2024, order of 25 September 2024, para 123 – Mammut v Ortovox). As already explained, the Court must proceed on the same interpretation of the scope of protection, regardless of whether infringement or validity of the patent in suit is being examined (UPC_CoA_335/2023, order of 26 February 2024, headnote 2 and p. 26 f. – 10x Genomics v Nanostring).

118. In the novelty assessment, the disclosure of the relevant document must be considered as a whole. However, this does not mean that the content of that document may be regarded as a kind of reservoir from which features could be taken to create a particular embodiment. Rather, different passages of a document may only be combined where a clear and unambiguous teaching suggests such a combination (UPC_CoA_473/2025, decision of 13 July 2026, para 151 – Fujifilm v Kodak).

119. The disclosure of a broader numerical range does not, as a matter of course, anticipate a narrower claimed range falling within it. This applies all the more where – as here – several parameters must be satisfied cumulatively and the prior art does not consider some of the claimed size classes at all.

b. Examination in the present case

120. On the basis of these principles, the prior art cited by the Defendants is not capable of calling the novelty of the patent in suit into serious question.

aa. Prior public use

121. The Defendants' objection of prior public use does not succeed.

122. A party relying on prior public use must set out and prove that a product with all the features of the invention was made available to the public before the priority date, i.e. without the recipient being subject to an express or implied obligation of confidentiality. Since the circumstances of an alleged prior use regularly lie solely within the sphere of the party relying on it, strict requirements must be imposed on proof: what was made available, when, to whom and under what circumstances must be established without gaps. This includes, in particular, that the sample material examined can be attributed with sufficient certainty to the product actually supplied (proof of identity).

123. On the basis of these principles, the Defendants have failed to satisfy the Court that the requirements of prior public use are met.

Proof of identity

124. In support of the alleged prior public use, the Defendants rely on production orders and deliveries before the priority date to various customers, including the Claimant. They allege that, before the priority date of the patent in suit, Defendant 2 obtained from third parties heats [Schmelzen] for producing Invar foil which had the properties according to the patent. They say those heats were publicly accessible and thus constitute novelty-destroying prior art in the form of prior public use. Defendant 2 had already produced Invar foils from these heats in Germany before the priority date and continues to sell them to this day to customers in Germany and France without concluding any confidentiality agreement. These Invar foils therefore constitute prior public use.

125. The Defendants purchased heats M2240, M2241 and M2253 from Aperam Alloys Imphy, France (order no. 4600002691 of 20 June 2017, Exhibit HE 74; delivery notes HE 77, HE 80 and HE 84). The heats were delivered in solid form as coils [Ringe]. The Defendants say nothing about the purchase of heats M2252 and W5527. This is significant for the Gold Sun delivery, because production order 1204477 is said to derive precisely from heat M2252. For that heat, there is therefore no evidence of origin whatsoever.

126. Pieces of the coils were cold-rolled by Defendant 2 in several working steps into thin metal sheets 25 µm to 100 µm thick ("Invar foils"). These comprise 6 Invar foils with the following production order numbers (production lot), which, as asserted by the Defendants, were sold to third parties:

(1) Production order (PO) 1204622 (from heat M2241) – delivered to: Dai Nippon on 1 July 2019, Exhibits HE 8–14; to Zapp China, then to EverDisplay Optronics (Shanghai) on 18 June 2019, Exhibit HE 15; to ACE Essential Trading, Taiwan on 18 June 2019, Exhibit HE 16; to Zapp China, then to Ace Essential Trading on 18 June 2019, Exhibit HE 17.

(2) PO 4875598 (from heat M2241) – delivered to: Zapp China, then to Nanjing TOPTO on 4 September 2019, Exhibits HE 18–HE 25; Nanjing TOPTO on 20 September 2019; EverDisplay Optronics on 10 September 2019, Exhibits HE 33 and HE 34; EverDisplay Optronics II, Exhibits HE 33 and HE 34.

(3) PO 1204477 (from heat M2252) – delivered to: Gold Sun Taiwan on 27 December 2018 and 21 January 2019, Exhibits HE 37–HE 48; LG Innotec Co on 17 December 2018, Exhibit HE 49; LG Innotec Co on 17 December 2018, Exhibit HE 50.

(4) PO 4712549 (from heat W5527) – delivered to: Gold Sun on 13 May 2019, Exhibits HE 51–HE 59; Gold Sun on 9 May 2019, Exhibits HE 60 and HE 61; ACE Essential on 24 July 2019, Exhibits HE 62 and HE 63.

(5) PO 1204271 (from heat M2253) – delivered on 23 February 2018 to the Claimant's Liaison Office in France, Exhibits HE 64–HE 68.

(6) PO 1204496 (from heat M2240) – delivered on 20 December 2018 to the Claimant's Liaison Office in France, Exhibits HE 64–HE 68.

127. By written submission of 10 September 2026, in response to a corresponding request from the Court in preparing for the hearing, the Defendants identified three deliveries which, in their view,

represent the full breadth of the facts alleged and ensure that the Court has a sufficiently sound factual basis on which to form its conviction. According to the Defendants, these three deliveries were selected because they concern three different customers in three different countries and two different production orders:

- delivery to the Claimant from production order 1204622,
- delivery to EverDisplay Optronics from production order 1204622, and
- delivery to Gold Sun Technology Co., Ltd. from production order 1204477.

128. Although the Defendants at the same time made clear that, in support of the prior public use and the right of private prior use, they continue to rely on all production orders and all deliveries addressed in the Statement of Defence of 16 September 2025 and in the Rejoinder of 21 January 2026, the following discussion concentrates on the deliveries and production orders identified above. The Defendants' supplementary submissions on the further deliveries and production orders do not compel any different assessment.

129. There is no doubt that the foil can be regarded as a metal plate with two surfaces. It is undisputed that all the foils consist of an iron-nickel alloy with various metallic and non-metallic admixtures. Feature 1 and feature group 2 are therefore disclosed.

130. To confirm that the Invar foils correspond to the disputed feature group 3 of claim 1, the Defendants instructed the measurement laboratory of the Montanuniversität Leoben and nanoAnalytics GmbH. For that purpose, the Defendants had measurements carried out on samples of the Invar foils and of the heats.

131. Insofar as the Defendants refer to the heats and argue that their composition corresponds to feature group 3, this is not persuasive. The heats are merely the starting material for producing the base metal. During processing, additional impurities may arise both at the surface and in the interior. In addition, the size and density of the inclusions may change (for example through fragmentation of brittle oxides during rolling). It cannot in any way be concluded that the composition of the heats, even if it corresponded to feature group 3, also determines the particle distribution of the metal plate as the end product. Only the measurements on the foils are therefore decisive.

132. As regards the deliveries identified by the Defendants, the samples concerned bear the following numbers:

1. for PO 1204622

   Montanuniversität Leoben (M2241_Leoben_30µm_1)

   nanoAnalytics (M2241_Nanoanalytics_30µm_1)

2. for PO 1204477

   Montanuniversität Leoben (M2252_Leoben_30µm_1)

   nanoAnalytics (M2252_Nanoanalytics_30µm_1)

Sampling and dispatch

133. According to the written witness statement of Mr Wegler, head of department at Defendant 2 in Unna (Exhibits HE 88 and HE 88a), sampling comprises the following steps: selection of samples, sample identification, transport of the samples to the Zapp laboratory, cutting of the samples for external measurement laboratories, packaging of the analysis pieces, and dispatch of the analysis pieces.

134. As alleged, the first sampling concerned the foils and samples referred to above and took place on 1 August 2025. The sampling is documented in Exhibit HE 88 and illustrated in Exhibit HE 88a. Only persons employed by Defendant 2 were involved in the sampling: Mr [redacted], Ms [redacted], Mr [redacted] and Mr [redacted]. No neutral third parties (for example a notary or expert) were involved in sampling and sealing – unlike in the case of the Claimant's samples (Exhibit WKS VK 11a).

135. Image 14 in Exhibit HE 88a, which was intended to document the cutting of the sample piece in order to send the pieces to external laboratories, is extremely blurred. The text below it asserts that the image relates "by way of example to foils 1204622". No photographs of the cutting were submitted for the other foils. Instead, Mr [redacted] refers to image 14 for all the other foils.

136. Dispatch to both laboratories is evidenced only in general terms in Exhibit HE 88, points 3.4 and 3.5, and in images 38 and 39.

137. These deficiencies in the documentation of sampling alone give rise to doubts as to the samples' identity. In what follows, the three deliveries identified are examined specifically against two criteria: proof of the origin and identity of the samples, and reliability of the measurements. Non-compliance with even one of these criteria is sufficient reason to reject the alleged prior public use.

Suitable investigations

Examination of the sample volume

138. As regards the conduct of the investigations, it remains unclear whether the sample volume was determined via weight and density or via foil thickness (cf. para [0233] of the patent in suit). If determined via weight, the stated thickness is irrelevant to the result and the objection falls away to that extent. If determined via thickness, the confusion distorts the result by one third – at a thickness of 30 µm, 1 mm³ corresponds to an area of 33.3 mm²; at a thickness of 40 µm, only 25.0 mm².

Additional exclusion criterion to eliminate glass particles

139. In addition to the four exclusion steps provided for in the patent in suit (cf. paras [0149]/[0150]), nanoAnalytics GmbH applied a fifth step and removed from the count, as glass particles, particles with a silicon content > 5% and a sodium content > 0.5%.

140. The Defendants justify this on the basis that the exclusion follows the intention of the patent in suit to exclude foreign particles. Sodium, they say, is not to be expected in an iron-nickel alloy.

141. However, the Claimant has convincingly calculated that borosilicate glass contains around 30%–40% silicon. The 5% threshold is therefore far below what a glass particle would have to contain. The criterion must therefore also capture non-glass particles. Yet silicon-containing oxides in particular (for example from deoxidation with silicon, cf. para [0051]) are typical inclusions which are to be counted according to the patent in suit. An exclusion criterion that departs from the patent means that measurement is no longer carried out in accordance with the method referred to in feature 3.1.2. How many particles were excluded in this way cannot be ascertained in the absence of raw data (below).

Blank values

142. In the method described in the patent in suit, the metal matrix is dissolved in acid; the remaining particles are collected on a filter and counted, measured and analysed by EDX there under the scanning electron microscope. Particles may originate not only from the sample, but also from reagents (acid, water), vessels, filters, laboratory air or the cutting of the sample. To capture this background, a blank test is carried out: the same procedure without a sample. The blank value indicates how many particles per size class reach the filter solely as a result of the procedure.

143. The significance of the blank value depends on its relationship to the sample signal. For a 30 µm thick foil, 1 mm³ corresponds to an area of around 33 mm². At the low concentrations in dispute here in the ≥ 3 µm and ≥ 5 µm size classes (single-digit to low double-digit values per mm³), depending on the quantity of sample used, only a few particles are counted in absolute terms. Even a few foreign particles then shift the result considerably. A measurement result is meaningful only if (i) blank values are determined and disclosed for each size class, (ii) it is stated whether and how they were subtracted, and (iii) the sample signal lies well above the blank value and its scatter.

144. Those requirements are not met here. The Defendants have not submitted the blank values per size class in a comprehensible manner, either for the measurements of the Montanuniversität Leoben or for those of nanoAnalytics GmbH. The negative value in report HE 90 (−1.5 particles ≥ 3 µm per mm³) shows that nanoAnalytics, at least there, subtracted a blank value which exceeded the count in the sample; in that size class, the measurement signal could therefore not be distinguished from the background of the procedure. Whether Leoben carried out any blank-value correction at all is not apparent. The different treatment of the background is an obvious explanation for the considerable discrepancies between the two laboratories.

Statistical significance

145. Particle counting is subject to random scatter which approximately follows a Poisson distribution: if n particles are counted, the standard deviation is approximately √n, and the relative uncertainty is therefore approximately 1/√n. What matters here is the number of particles actually counted, not the value extrapolated to 1 mm³. If, for example, only five particles are counted in the ≥ 5 µm size class, the relative uncertainty is around 45%; with a single particle counted, a meaningful statement is practically impossible. Extrapolation to 1 mm³ transfers this uncertainty unchanged to the result, which thereby suggests a precision it does not possess.

146. In addition, there is the inhomogeneity of the material: inclusions are not evenly distributed in an ingot or coil; their density may vary considerably between the start and end of the strip, between the centre and edge of the strip, and between different regions of the original ingot. To establish that an entire delivery met the features of the claim, a single measurement on a single sample piece is therefore generally not sufficient. Several samples from defined positions on the strip, or repeat measurements stating the scatter, the volume examined and the absolute particle numbers per size class, would be required.

147. The Defendants did make submissions on statistical significance by written submission of 13 April 2026 (paras 123–130, Exhibit HE 161). Those submissions are, however, late (see above). Nor are they persuasive to the panel on the merits: there is only a single measurement per foil and laboratory; the absolute particle numbers and the volume examined have not been disclosed in a comprehensible manner; and the results of the two laboratories for the same foil differ by up to a factor of 2.6. Such a discrepancy lies far outside what would be expected from reliable measurement of identical material. It indicates either considerable inhomogeneity of the material or differences in execution – in either case, no reliable statement can be made about the properties of the foils supplied before the priority date.

(Lack of) raw data

148. The test reports submitted essentially contain only the end results per size class extrapolated to 1 mm³. Verification would, however, require the raw data: the list of individual particles detected with their equivalent circle diameter and EDX composition, the determination of each main component (feature 3.1), the particles eliminated in the individual exclusion steps (paras [0149]/[0150] and the additional glass criterion), the sample weight or volume used, the filter area evaluated, magnification and detection limit, and the blank values. Only with these can it be checked whether measurement was carried out in accordance with the method referred to in feature 3.1.2.

149. The Defendants submitted raw data only with the late written submission of 13 April 2026 (Exhibit HE 158), and moreover in redacted form. The redactions prevent precisely the verification of the points referred to above; review by the Claimant or the panel is thus not possible. Since the Defendants bear the burden of presentation and proof for the prior public use, this operates to their detriment. They would have been free to protect their confidentiality interests by an application under Art. 58 UPCA, R. 262A RoP rather than redacting the data.

Prior public use of the foil from production order 1204622 (heat M2241, 30 µm)

150. As regards foil PO 1204622, the objection of prior public use fails if only because the Defendants have been unable to prove the identity of the sample examined. In addition, the investigations carried out also have considerable deficiencies.

Origin of the sample

151. In this respect, the Defendants (initially) relied on four deliveries, namely to the Claimant itself, to EverDisplay Optronics and twice to Ace Essential Trading.

152. According to the witness statement of Mr [redacted], HE 88 (point 3.1.1.1), and images 3 and 4 of Exhibit HE 88a, however, the retained sample examined comes from a fifth delivery, to LG Innotek, which was not relied upon by the Claimant [sic].

153. The production order, Exhibit HE 118, which identifies LG Innotek as the main customer, but from which the four deliveries relied upon are also said to originate, was submitted subsequently with the Rejoinder.

154. In their statement of 10 September 2026, the Defendants submitted that the sample had been taken from the deliveries to the Claimant and to EverDisplay Optronics.

155. At the oral hearing, the Defendants finally stated that the material had been divided into five parts, the retained sample having been taken from only one of those parts, namely the part for LG Innotek.

156. The Defendants have not submitted any delivery documents for LG Innotek relating to this production order.

157. The Defendants have not succeeded in clearly establishing the origin and identity of the sample examined, since the deliveries from this foil which they describe as the most reliable display numerous inconsistencies, as set out below.

Delivery to the Claimant (Exhibits HE 8 – HE 14)

158. Production order Exhibit HE 118 bears material number 2204659, whereas the delivery documents to the Claimant bear material number 2011787.

159. According to the Defendants, the designation "special stress relieved" in the Claimant's order confirmations (Exhibit HE 8) is synonymous with "kaltgewalzt, entspannt" [cold-rolled, stress-relieved] in the production order (Exhibit HE 118). The Claimant counters this with the Defendants' own presentation HE 141 (page 25), which lists "Super Stress Relieved" and "Tension Annealed" as different processing grades with different foil properties.

160. From a technical perspective, the following applies: "stress relieved" (spannungsarm geglüht, "entspannt") denotes heat treatment of the cold-rolled strip at a comparatively low temperature which reduces residual stresses without recrystallising the rolled microstructure; the strip remains hard and only slightly ductile. "Tension annealed" denotes continuous annealing under tensile stress, which serves primarily to achieve flatness. The prefix "special" or "super" suggests a product-specific variant with its own process parameters. The term "kaltgewalzt, entspannt" thus corresponds to the general generic term, not necessarily to the particular "special stress relieved" variant. The Defendants have stated neither the annealing temperature nor the annealing time nor the strip tension for the two designations, so the alleged equivalence is not established.

161. This discrepancy does not directly concern feature group 3: non-metallic inclusions (oxides, sulphides, nitrides) are thermally stable at the temperatures customary for stress-relief annealing, so annealing variants are unlikely to alter the particle distribution significantly. The discrepancy is, however, an indication that the material examined is not identical to the material supplied to the Claimant. That indication is confirmed by the material characteristics:

162. As regards the delivery to the Claimant, it remained undisputed that the mill certificate (Exhibit HE 11) states a maximum value of 1.5% for parameter A80 and a maximum value of 1.300 µm for parameter Rz. By contrast, production order Exhibit HE 118 states the values A80: max. 10.0%;

Rz: 2.550 µm, which also underlie the retained sample actually examined. An elongation at break of no more than 1.5% is typical of a hard, cold-rolled and merely stress-relief annealed strip; a permissible elongation at break of up to 10% indicates a softer, more heavily annealed condition. The specifications of the material supplied and the material examined therefore differ in heat-treatment condition and surface roughness.

163. Production order Exhibit HE 118 bears the note "Nullserie ohne PPF/PPAP" [pilot series without PPF/PPAP]. Correspondingly, Defendant 2's invoice for the delivery to the Claimant (Exhibit HE 13) bears the note "Trial quantity - free of charge Amount only for customs purposes". These are therefore not series products but samples.

164. In view of these inconsistencies, it cannot be established with the necessary certainty that the sample examined is identical to the Claimant's delivery.

Delivery to EverDisplay Optronics

165. The foil delivered to the Claimant and the foil delivered to EverDisplay Optronics differ, even though, according to the Defendants, they are said to come from the same production order.

166. In Exhibit HE 15, for the same foil delivered to EverDisplay Optronics (and, in Exhibits HE 16 and HE 17, for the further deliveries from production order 1204622), by contrast, the material number is stated as "8802503" and the surface property as "reflecting". The Defendants explained this merely by saying that the designations were assigned by the sales department and are no indication of differences in the surface condition of the respective foils supplied.

167. For the same production order, there are therefore three different material numbers (2204659, 2011787, 8802503) and differing specification details.

168. It therefore cannot be established with the necessary certainty that the sample examined corresponds to the material supplied to the Claimant or to EverDisplay Optronics.

Measurements

169. The two laboratories determined considerably divergent values on samples of the same foil.

170. According to the laboratory report of 18 August 2025 of the measurement laboratory of the Montanuniversität Leoben (Exhibit HE 91), the sample meets all features of feature group 3 of claim 1 and all features of claims 2–7:

Foil thickness – 30 µm.

Particle density per mm³:

155 particles in the size range ≥ 1 µm;

8 in the range ≥ 3 µm;

0 in the range ≥ 5 µm;

95% of the particles measured therefore fall within the 1–3 µm size range.

171. Test report P16588-K2662 of 15 August 2025 of nanoAnalytics GmbH (Exhibit HE 90), sample M2241_Nanoanalytics_30µm_1, differs substantially and contains physically impossible values:

Particle density per mm³:

85 particles in the size range ≥ 1 µm,

−1.5 in the range ≥ 3 µm,

6 in the range ≥ 5 µm.

Accordingly, 102% of the particles larger than 1 µm fall within the 1–3 µm size range.

172. These values are impossible in three respects: a particle count cannot be negative; the "≥ 5 µm" class (6) cannot contain more particles than the "≥ 3 µm" class (−1.5) which encompasses it; and a proportion cannot exceed 100%. A negative value typically arises where a blank value larger than the count in the sample itself is subtracted from the particle count (see "Blank values"

above). This shows that, at least in the ≥ 3 µm and ≥ 5 µm size classes, the measurement signal could not be distinguished from the background of the procedure.

173. The report is therefore not usable for those size classes and thus also not for the ratio under feature 3.2.

Prior public use of the foil from production order 1204477 (from heat M2252)

174. As regards foil PO 1204477, the objection of prior public use likewise fails for the same reasons. The Defendants have been unable to prove the origin and identity of the sample examined. In addition, the investigations carried out also have considerable deficiencies.

Origin of the sample

175. The sample for PO 1204477 was taken from a box containing three samples in which it had been stored (Exhibit HE 88, para 3.1.1.3; Exhibit HE 88a, images 7 and 8). No link was established to any of the deliveries referred to above.

176. Furthermore, according to the delivery documents (order confirmation, Exhibit HE 37, and delivery note, Exhibit HE 38), foil PO 1204477 should have a thickness of 40 µm. The sample, however, has a thickness of 30 µm. According to the written witness statement of Mr [redacted], a handwritten error occurred during sampling.

177. In their statement of 10 September 2026, the Defendants put forward a new assertion that the sample had been taken from the deliveries to Gold Sun Technology. In addition, the Defendants have said nothing about the origin of heat M2252 (see above).

178. Production order 1204477, submitted with the Rejoinder as Exhibit HE 126, is incomplete; page 8 of 26 is missing. According to the Defendants' own submissions (Rejoinder, para 102), this page was evidently lost during scanning and can no longer be found. Page 8 must have shown an operation falling chronologically after pre-rolling (operation no. 700) and before intermediate annealing (operation no. 900). This could only have been the edge-trimming operation. In the overview on page 2 of the production order, this sequence is documented by a handwritten entry confirming that edge trimming was carried out as described. For the question whether the foil was rolled to 30 µm or to 40 µm, however, complete documentation of the rolling passes is significant.

179. In view of these inconsistencies, the origin of the sample cannot be established with the necessary certainty.

Deliveries to Gold Sun Technology

180. The two part-deliveries to Gold Sun Technology of 27 December 2018 and 21 January 2019 are extensively documented (HE 37–HE 48) and supported by witness statement HE 46a.

181. According to the written witness statement of the witness Beryl (Exhibit HE 46), who is identified as an employee of Gold Sun Technology Co., Ltd., the dates of receipt of the two part-deliveries were 20 December 2018 (delivery note number 10335363) and 17 January 2019 (delivery note number 10336118) respectively. This statement contradicts the delivery notes in Exhibits HE 38 and HE 43, which give the delivery dates as 27 December 2018 and 21 January 2019 respectively. The alleged receipt would therefore in each case precede dispatch.

182. The order confirmation in Exhibit HE 37 states that two part-deliveries are said to have been made, one of 600 kg and one of 400 kg, i.e. 1,000 kg in total. The delivery notes, however, state quantities of only 275.100 kg (cf. Exhibit HE 38) and 245.850 kg (cf. Exhibit HE 43). In the Rejoinder, the Defendants asserted that two part-deliveries from production order 1204477 were supplied to Gold Sun, of 183.1 kg (HE 38) and 160.55 kg (HE 43) respectively, i.e. 343.65 kg in total. The deliveries were thus also served from other material, without it being apparent which part of the delivery came from PO 1204477.

183. It therefore cannot be established with certainty that the sample examined corresponds to the material supplied to Gold Sun Technology.

Measurements

184. According to the laboratory report of 18 August 2025 of the measurement laboratory of the Montanuniversität Leoben (Exhibit HE 95), sample M2252_Leoben_30µm_1 has the following values:

Particle density per mm³:

218 particles in the size range ≥ 1 µm;

14 in the range ≥ 3 µm;

5 in the range ≥ 5 µm.

94% of the particles measured fall within the 1–3 µm size range.

185. According to test report P16588-K2662 of 15 August 2025 of nanoAnalytics GmbH (Exhibit HE 94), sample M2252_Nanoanalytics_30µm_1 has the following values:

Particle density per mm³:

417 particles in the size range ≥ 1 µm;

23 in the range ≥ 3 µm;

13 in the range ≥ 5 µm;

95% of the particles larger than 1 µm fall within the 1–3 µm size range.

186. The results of the two laboratories differ by a factor of approximately 2 (≥ 1 µm: 218 vs 417), 1.6 (≥ 3 µm: 14 vs 23) and 2.6 (≥ 5 µm: 5 vs 13) respectively. According to the delivery documents, foil 1204477 has a thickness of 40 µm. On Leoben's values, it would satisfy dependent claims 2, 3, 5 and 6, but not dependent claims 4 and 7; on nanoAnalytics' values, dependent claim 3 (≤ 20 particles ≥ 3 µm) would also not be satisfied (23). The sample examined, by contrast, has a thickness of 30 µm and would therefore also fall within claim 7.

187. In view of the unexplained origin of the samples, the contradictory delivery and specification documents, and the considerable and in part physically impossible discrepancies between the two laboratories' measurements, it cannot be established with the necessary certainty that the foils supplied before the priority date had all the features of claim 1. This alone supports the decision, and does so for all three deliveries identified. The following observations on confidentiality are made in addition.

Confidentiality agreement

188. It is undisputed that Defendant 2's general terms and conditions of sale submitted (Exhibit HE 9) contain no confidentiality obligation. The question arises, however, whether individual confidentiality agreements may have existed.

189. Once it has been shown that a product was supplied to a third party without restriction, it is for the opposing party to put forward specific indications of a confidentiality agreement (secondary burden of presentation). The burden of proving public availability nevertheless remains with the party relying on the prior public use.

190. Insofar as the Claimant relies on the reference, found in various documents, to so-called "Nullserien" [pilot series], this alone does not suffice to establish a confidentiality agreement, since, at least on the Defendants' case, the relevant products were handed over to potential customers or test users. They are thereby deemed to have been made available to the public, unless the recipient was under an explicit or implicit obligation of confidentiality. This requires the presentation of specific connecting facts for such an agreement.

191. In its sur-rejoinder, with reference to Exhibit WKS_VK_23, the Claimant pointed out, in relation to a delivery to EverDisplay Optronics, that there is a reference there to a confidentiality agreement

concluded between the parties. The customer order from EverDisplay Optronics, submitted by the Defendants only with the Rejoinder (cf. Exhibit HE 147, submitted in Chinese), contains at point 6.1 the following express confidentiality provision, according to the machine translation filed by the Claimant:

"Performance is in accordance with the confidentiality agreement signed by both parties."

The Defendants have disputed neither the accuracy of the translation nor the conclusion of that agreement. An express obligation of confidentiality must therefore be assumed for that delivery. It would then have been for the Defendants to set out and prove that this agreement did not extend to the foils supplied or had ended before the delivery. They have not done so.

192. For the deliveries to the Claimant and to Gold Sun Technology, by contrast, no confidentiality agreement can be established. That is, however, immaterial, because for those deliveries it has not been proven in the first place that the material supplied had the features of claim 1 (see above).

193. From the Defendants' submissions and all the facts set out above, it cannot be established that the invention, with all its technical features, was available to the public at the priority date. The alleged prior public use has therefore not been proven.

bb. Novelty over D1 – JP 2000239802 (Exhibit HE 102a, Exhibit WKS NWK 2)

194. The patent in suit is novel over document D1.

195. D1 concerns a shadow mask (cf. para [0001] of Exhibit HE 102a). The Claimant explained the difference between a shadow mask and a deposition mask in its Reply and Defence to the counterclaim for revocation, and the Defendants did not dispute that explanation. Shadow masks are positioned behind screens, for example of television sets, to ensure that the electron beams passing through the holes each strike a specific phosphor dot of a phosphor triad comprising the three primary colours blue, green and red.

196. Since claim 1 is to be interpreted as a product claim (above, C. II. 2. b. [sic – D. II. 2. b.]), the different intended use of the shadow mask is not decisive; the plate described in D1 would be novelty-destroying if it had all the features of feature group 3.

197. That is not the case, however.

198. The object of D1 is to provide an Fe-Ni alloy plate and a shadow mask which can be used for high-resolution colour televisions and personal computers and which have excellent etch-perforation properties at low cost, without defects occurring during etch perforation.

199. The mere fact that D1 states the number of particles per gram rather than per cubic millimetre does not in itself establish novelty. Conversion is readily possible via the density of an Invar alloy (approx. 8.1 g/cm³, i.e. 0.0081 g/mm³). Novelty does, however, follow from the following:

200. First, D1 is concerned exclusively with oxide inclusions, whereas the patent in suit covers all particles whose main component is an element other than iron and nickel (cf. paras [0003], [0009], [0027], [0054]).

201. Second, D1 does not consider the ≥ 1 µm and ≥ 3 µm size classes, and discloses neither a lower limit of 50 particles ≥ 1 µm nor the ratio under feature 3.2.

202. Third, the converted upper limits of D1 are more than an order of magnitude above the limits of claim 1 (≤ 3,000 particles ≥ 1 µm, ≤ 20 particles ≥ 5 µm per mm³). Such a broad range does not directly and unambiguously disclose the narrow range of the patent in suit, defined cumulatively by several size classes. The Defendants have not identified any specific working example of D1 falling within the claimed range.

cc. Novelty over D2 – JP 2019-26900 A (Exhibit HE 104a, Exhibit WKS NWK 3)

203. Document D2 likewise does not anticipate the teaching of the patent in suit.

204. The citation concerns a material for deposition masks (cf. Exhibit D2a, para [0001]).

205. The measurements of inclusions in D2 were carried out only on the surface of the metal plate and not in its interior (cf. Exhibit D2a: [0006]), whereas the patent in suit also concerns inclusions within the metal plate.

206. In D2, the number of particles is stated per unit area. In the patent in suit, by contrast, the number of particles is stated per unit volume. Unlike conversion from mass to volume, conversion from area to volume densities is not trivial, but requires assumptions about the shape, size distribution and spatial distribution of the particles.

207. The Defendants take the view that the number of particles per unit volume according to claim 1 can be determined from knowledge of the particles per unit area (expert report, Exhibit HE 103). In his report, Dr [redacted] determined the particle numbers per size class and per unit volume (mm^3) using a Weibull distribution and the "Delesse principle" (cf. table in section 3 of the report).

208. The Claimant countered this with two convincing expert reports from [redacted] and [redacted] (Exhibit WKS VK 18m). The Weibull distribution is suitable for surface particle distributions in metal plates, but is not sufficiently precise for the interior. The Delesse principle may only be applied where the particle distribution in the metal plate is homogeneous, which is not the case here. In addition, the surface of a rolled foil is precisely not representative of its interior, because particles may accumulate at, or be removed from, the surface as a result of the rolling and pickling process.

209. It therefore cannot be established that the particle numbers per size class and unit volume in D2 correspond to the conditions of claim 1.

dd. Novelty over D3 – EP 3 514 249 A1 (Exhibit HE 105a)

210. Document D3 likewise does not anticipate the technical teaching protected by the patent in suit.

211. The citation concerns a metal plate for manufacturing OLED displays. It describes the same technical problem as the patent in suit (cf. para [0002] of D3): the inclusions in the Ni-Fe alloy prevent precise etching of the through-openings. The objective technical problem is therefore also the same: to produce a material for metal masks for etching processes in display manufacture which can be etched with high precision (cf. D3 [0002], [0004] and [0010]).

212. The two documents differ in the solution given to the problem and disclose metal plates with different features.

213. The disclosure in D3 relates only to large oxide-based particles larger than 10 µm and medium-sized particles of 6 µm to 10 µm. Consequently, all particles which are not oxide-based and/or are smaller than 6 µm are disregarded in the subsequent determination of particle density.

214. What is more, D3 teaches that smaller inclusions can hardly affect the quality of the metal plate (cf. para [0028]: "[…] inclusions with a size of less than 6.0 µm were so fine that they would probably not significantly affect the etching process.").

215. The patent in suit, by contrast, concerns particles with a size of at least 1 µm, at least 3 µm, and at least 5 µm.

216. D3 discloses neither these size classes nor the associated limit values nor the ratio under feature 3.2. The fact that D3 states the number of particles per gram rather than per mm^3 is, by contrast – as with D1 – not in itself a distinguishing feature.

ee. Novelty over D4: JPH05214492A (Exhibit HE 106a)

217. Document D4 concerns metal plates for manufacturing shadow masks.

218. The Defendants have not made substantiated submissions on the disclosure of D4 and have referred to the disclosure of D3.

219. Since the disclosure of D4 does not go beyond that of D3, the patent in suit is also novel over D4.

ff. Novelty over D5: JPH04354853A (Exhibit HE 155 [sic – HE 107 at para 30])

220. The arguments on lack of novelty over D5 newly advanced by written submission of 21 January 2026 constitute a new revocation attack and are therefore inadmissible (R. 263 RoP and R. 9.2 RoP respectively).

221. In principle, the defendants/counterclaimants are not permitted to introduce further revocation attacks in submissions subsequent to the counterclaim for revocation, unless they can present sound reasons for the later introduction of such attacks (cf. decision of 21 July 2025, Paris Central Division, UPC_CFI_231/2024, Sibio v Abbott). The Defendants have been unable to show any such reasons.

222. Apart from this, D5 is in any event incapable of seriously calling novelty into question, since the Defendants have not advanced any independent arguments in that regard.

2. Inventive step

223. On the basis of the Defendants' submissions, inventive step is not lacking either.

a. Standard

224. An invention involves an inventive step if, having regard to the state of the art, it is not obvious to the skilled person (Art. 56 EPC).

225. According to the case law of the Court of Appeal, inventive step is to be assessed as follows (see UPC_CoA_464/2024, decision of 25 November 2025, headnotes 7 ff., paras 131 ff. – Meril v Edwards; UPC_CoA_528/2024, decision of 25 November 2025, headnotes 10 ff., paras 126 ff. – Amgen v Sanofi; see also UPC_CoA_335/2024 [sic], order of 26 February 2024, p. 34 f. – Nanostring v 10x Genomics):

226. First, it must be established what the invention is about, i.e. the objective problem (the objective technical problem) must be determined. This must be assessed from the perspective of the skilled person with their common general knowledge at the date of filing or priority date of the patent (relevant date). For this purpose, it must be determined what contribution the invention makes to the state of the art, not by considering the individual features of the claim, but by comparing the claim as a whole in the context of the description and drawings, also taking into account the inventive concept underlying the invention (the technical teaching), which must be based on the technical effect(s) which the skilled person, on the basis of the application, understands to be achieved by the claimed invention.

227. To avoid hindsight, the objective problem should not contain pointers to the claimed solution.

228. The claimed solution is obvious if the skilled person at the relevant date, starting from a realistic starting point in the prior art in the relevant field of technology and seeking to solve the objective problem, would have arrived at the claimed solution, and not merely could have arrived at it.

229. The relevant field of technology is the specific field relevant to the objective problem to be solved, and any field in which the same or a similar problem arises and of which the skilled person in the specific technical field must be expected to be aware.

230. A starting point is realistic if its teaching would have been of interest to a skilled person who, at the relevant date, wished to solve the objective problem. This may be the case, for example, where the relevant prior art already discloses several features similar to those of the claimed invention and/or addresses the same or a similar underlying problem as the claimed invention. There may be more than one realistic starting point, and the claimed invention must be inventive starting from each of them.

231. The skilled person has no inventive skills and no imagination and requires a pointer or motivation that prompts them, starting from a realistic starting point, to take a next step towards the claimed

invention. As a rule, a claimed solution is to be regarded as non-inventive/obvious if the skilled person would take the next step on the basis of the pointer, or as a matter of routine, and arrive at the claimed invention.

232. For an inventive step to exist, it is not necessary to demonstrate an improvement of the claimed technical teaching over the prior art. An inventive step may also exist where the claims disclose a non-obvious alternative to the solutions known in the prior art.

b. Examination in the present case

233. Measured against these principles, a lack of inventive step cannot be established.

234. The Defendants asserted lack of inventive step starting from each of documents D1, D2 and D3 alone.

Starting from D1

235. D1 concerns shadow masks for cathode ray tubes, whose hole sizes and precision requirements differ considerably from those of high-resolution OLED deposition masks. Whether D1 is a realistic starting point at all can be left open.

236. The skilled person would not turn to D1 to solve the technical problem – how to improve the accuracy of the shape of a through-hole. D1 contains no pointer whatsoever to include non-oxide particles, to consider the ≥ 1 µm and ≥ 3 µm size classes, to reduce particle numbers by more than an order of magnitude below the limits stated in D1, or to set the ratio under feature 3.2.

237. To arrive at the invention starting from D1, the skilled person would have to carry out numerous tests and calculations and make considerable efforts. There is therefore an inventive step over D1.

Starting from D2

238. Since D2 concerns a material for deposition masks, it constitutes a realistic starting point for the assessment of inventive step.

239. However, the particle numbers and ratios described in feature group 3 can neither be derived directly from D2 nor do they follow from it in an obvious manner.

240. Even assuming that the skilled person would convert the number of particles per unit area into unit volumes, D2 contains information only on the particles at the surface, and nothing would prompt the skilled person to investigate the particles in the depth and interior of the metal plate.

Starting from D3

241. D3 constitutes a realistic starting point because – like the patent in suit – it concerns a metal plate for manufacturing OLED deposition masks and addresses the same problem (above, 1.4 [sic – cross-reference as in original]).

242. The subject matter of claim 1 differs from D3 in that (i) all particles with a main component other than iron and nickel are covered, (ii) the number of particles in the size classes ≥ 1 µm, ≥ 3 µm and ≥ 5 µm per unit volume is limited, and (iii) at least 70% of particles ≥ 1 µm are smaller than 3 µm.

243. The skilled person received no prompt from D3 to consider particles below 6 µm for this purpose; on the contrary, D3 expressly teaches that such particles are unlikely to significantly affect the etching process (para [0028]). D3 thus leads away from the solution of the patent in suit, which specifically limits the particles in the range from 1 µm to 5 µm and specifies their ratio to one another. The Defendants have not relied, in combination with D3, on any other documents that would have pointed the skilled person in that direction.

244. The question whether special principles apply to unusual parameters is also immaterial here, since the parameters of feature group 3 are not unusual (above, C. II. 2. c. [sic – D. II. 2. c.]). The

subject matter of claim 1 involves an inventive step over all the starting points asserted. The same applies to dependent claims 2 to 7, which refer back to claim 1.

III. Auxiliary requests

245. Since the counterclaim for revocation is dismissed and the patent in suit is maintained as granted, there is no need to address the auxiliary requests to amend the patent in suit. This also makes a decision on the admission of Auxiliary Requests 1a to 28a and 1b to 28b unnecessary; the Defendants' application in that regard is moot.

F. Merits of the infringement action

246. The infringement action is well founded.

I. Realisation of the features

247. The attacked embodiments make literal use of all features of claim 1 of the patent in suit.

248. The parties rightly do not dispute that all features of claim 1 are realised, so no further discussion is required. In particular, by means of the measurements carried out by Eurofins EAG Laboratories ("Eurofins"), based in the Netherlands, and the resulting analysis results, the Claimant has comprehensibly shown that the attacked embodiments realise all features of claim 1 of the patent in suit (cf. Exhibits WKS VK 11a and WKS VK 11). In addition, by means of the notarially certified deeds filed, the Claimant has evidenced the identity of the samples transmitted by the Defendants to the Claimant and then examined by Eurofins (cf. Exhibits WKS VK 7a to WKS VK 7i). The Defendants have not disputed these in any material way either.

249. Insofar as the Defendants attack the measurements commissioned by the Claimant solely on the ground that they relate to the wrong object, because they were carried out on metal plates rather than on finished deposition masks, this is not persuasive.

250. As the panel has already explained in the context of interpretation, claim 1 protects a metal plate. The deposition mask, by contrast, is only the subject matter of claim 14, infringement of which has not been asserted. Measurements on the deposition masks as a product are therefore not required and are not relevant to the present case. The measurements on the metal plate establish that the attacked embodiments correspond to the technical features of the patented invention according to claim 1.

II. Right of private prior use

251. The Defendants' reliance on a right of private prior use in Germany and France is unsuccessful.

252. On the basis of the wording of Art. 28 UPCA, the parties rightly assume that the existence of a right of prior use must be pleaded for each of those states under its own conditions (cf. UPC_CoA_312/2025, decision of 2 June 2026, headnotes 2 and 3; UPC_CFI_7/2023 (Düsseldorf LD), decision of 3 July 2024, p. 26 – Kaldewei v Bette).

1. Germany

253. In Germany, the right of prior use is governed by § 12 PatG [German Patent Act] and has three requirements:

1. possession of the invention [Erfindungsbesitz];

2. exercise of the possession of the invention;

3. the act of exercise must have taken place with knowledge of the inventive concept at the filing or priority date.

254. The possession of the invention required for a right of private prior use exists where the prior user has recognised the inventive concept to such an extent that they were able to bring about the

result according to the patent in a planned manner, in the sense of a repeatable technical teaching. In other words, it is not sufficient that the result according to the invention arose purely by chance or unrecognised.

255. Applied to the present case, this means that, for possession of the invention, it is not sufficient that the Defendants were in possession of metal plates meeting all the features of the patent claims in suit. This applies all the more given that the Defendants were unable to prove in the revocation proceedings that the deliveries they made actually involved such metal plates. What is decisive is whether the technical teaching of the invention had objectively emerged as complete and had subjectively been recognised as such – that, and how, actual implementation is possible, and that it is precisely this particle concentration, including the limit values for individual particle sizes set out in feature group 3, that matters.

256. The Defendants' submissions in the Statement of Defence are not sufficient to establish possession of the invention.

257. The asserted possession of the invention is essentially based on the prior public use – likewise not proven here – and is limited to the statement that in 2017 Defendant 2 obtained heats from Aperam Alloy Imphy having the number and size of particles claimed in the patent in suit. Defendant 2 processed those heats at its plant in Unna into the attacked Invar foils and then supplied them to numerous customers. The Statement of Defence does not indicate that the Defendants had recognised that the particle sizes stated in the claim, and the particle quantities assigned to each of them, are what matters.

258. By their Rejoinder of 21 January 2026 (section D), the Defendants introduced new factual submissions into the proceedings in support of the right of private prior use allegedly available to them. Under R. 9.2 RoP, these new factual submissions are to be rejected as late-filed (order of the Mannheim Local Division of 2 April 2025, UPC_CFI_365/2023, Fujifilm v Kodak; decision of the Paris Central Division of 22 January 2025, UPC_CFI_310/2023, NJOY v VMR Products).

259. Even if the Defendants' new factual submissions in their Rejoinder were nonetheless taken into account, no different assessment would result. Even then, the Defendants have not sufficiently set out possession of the invention.

260. According to the written witness statement of Dr [redacted], currently Manager for Materials Technology at the Zapp system [sic – presumably "Zapp group"] (Exhibit HE 137), the Defendants were commissioned in 2015 to develop and manufacture foils for LG Innotek. These foils were intended for the manufacture of OLED screens. According to LG Innotek's specifications, the metal foil was to (i) consist of an iron-nickel alloy, (ii) have a thickness of no more than 0.030 mm, (iii) have only limited waviness and low internal stress, and (iv) have inclusions (particles) smaller than 1.5 micrometres.

261. Neither the witness statements nor the subsequent presentations (Exhibit HE 140, meeting with and presentation for Darwin on 10 April 2017, and Exhibit HE 141, lecture at the PCMI conference in May 2017) show that the technical teaching of the patent was recognised and applied by the Defendants before the priority date. They relate only to the distribution of particles at the surface, measured in units of area, and not to the entire volume. Moreover, the specific concentration and permissible limit values in the entire volume are not stated. In addition, the Defendants expressly stated at the oral hearing that they had not investigated the distribution of particles in the volume because they had considered this irrelevant. Furthermore, the statements on the findings allegedly obtained regarding particle size relate only to non-metallic inclusions (cf. Exhibit HE 137, p. 3, para 3, first paragraph). The patent in suit contains no such restriction. Finally, the specification "inclusions smaller than 1.5 µm" rather suggests the aim of avoiding inclusions altogether, rather than the recognition that a minimum number of particles ≥ 1 µm (condition (1): 50 or more), combined with limiting the larger classes and a proportion of small particles of at least 70%, is decisive.

262. Possession of the invention has therefore not been proven. Since the first requirement of private prior use under German law is not met, there is no need to discuss the other requirements of the right of prior use.

2. France

263. The Claimant submitted an opinion on French law from Rechtsanwalt Dr [redacted], UPC representative (Exhibit WKS VK 22b).

264. French law recognises prior use of the subject matter of a patent in Article L.613-7 of the French Intellectual Property Code (Code de la propriété intellectuelle).

265. In an action for infringement of a French patent, a defendant relying on a right of prior use must prove that, at the filing date or priority date of the patent asserted, it was in good faith in possession of the invention on French territory.

266. Under French law too, possession of the invention is the core element of the right of private prior use. Possession of the invention presupposes a complete and enabling understanding of the invention in all its technical elements, enabling it to be carried out repeatably without any inventive contribution. As has already become apparent, this element is not present.

267. Furthermore, possession of the invention must have existed in France before the filing or priority date of the contested patent. The Defendants' connection with France is limited to importing heats from that country, which is not sufficient to establish the territorial element of private prior use in France. The alleged deliveries to the Claimant's Liaison Office in France (PO 1204271, PO 1204496) were not included by the Defendants among the representative deliveries identified; there are no usable submissions on their conformity with claim 1.

268. Consequently, the Defendants have no right of private prior use and are liable for their acts of infringement.

III. Acts of infringement

269. The Defendants are liable as infringers within the meaning of Art. 25(a) UPCA for offering and distributing the attacked embodiments in the relevant Contracting Member States.

1. Defendant 2

270. Defendant 2 is expressly named as the manufacturer and contact for the production and distribution of "SuperClean Invar 36" metal plates (Exhibit HE 108). The Defendants have not disputed acts of infringement by Defendant 2, so no further discussion is required in this respect.

2. Defendant 1

271. Defendant 1 is also liable as an infringer, since the attacked embodiments were at least offered on the website for which it is responsible.

272. As the Court of Appeal clarified in Belkin v Philips (UPC_CoA_534/2024 of 3 October 2025), the term "offering" within the meaning of Art. 25(a) UPCA is to be interpreted autonomously. Offering is to be understood in the economic sense, and not in the legal sense of a binding contractual offer. The offer therefore need not contain all the details necessary for immediate conclusion of a contract by mere acceptance of the offer. It is sufficient for an item to be presented in such a way that viewers can make an offer to acquire it, e.g. to conclude a contract of sale, rental or lease. Even an "invitatio ad offerendum" is therefore covered.

273. Accordingly, a direct ordering facility is not required, which justifies regarding the website for which Defendant 1 is responsible as already constituting an offer of the attacked embodiment in Germany and France, and, on that basis, classifying Defendant 1 as an infringer.

G. Legal consequences

274. As regards the legal consequences, the following applies:

I. Injunction

275. Taking into account the circumstances of the case, the Claimant is entitled to an order prohibiting the continuation of the infringement under Art. 25(a) UPCA in conjunction with Art. 63(1) UPCA. The Defendants have neither put forward any grounds that could render the injunction disproportionate, nor are any apparent.

II. Declaration of infringement and of liability for damages in principle

276. The declaration of patent infringement is based on Art. 64(2) UPCA (cf. UPC_CFI_758/2024 (Düsseldorf LD), decision of 10 June 2026, para 313 – Hologic v Siemens).

277. A declaration of liability to pay damages in principle is possible on the basis of Art. 68(1) UPCA. The requirements of Art. 68(1) UPCA are met. The Defendants at least ought to have known that their acts infringed the patent in suit. Since both Defendants participated in the same acts of infringement, they are, as requested, jointly and severally liable.

III. Provision of information and rendering of accounts

278. Furthermore, the Claimant has a right to information against the Defendants under Art. 25(a) UPCA in conjunction with Art. 67 UPCA. There are no concerns regarding the manner of information requested.

279. In addition, under Art. 68(3)(a), (b) UPCA in conjunction with R. 191.1, second alternative, RoP, the Claimant may demand such information as it reasonably requires for the purpose of pursuing its claims and which also enables it to verify the accuracy of the information provided and to obtain a basis for calculating its damages (UPC_CFI_7/2023 (Düsseldorf LD), decision of 3 July 2024, p. 29 – Kaldewei v Bette; UPC_CFI_16/2024 (Düsseldorf LD), decision of 14 January 2025, p. 36 – Ortovox v Mammut; UPC_CFI_11/2024 (Düsseldorf LD), decision of 8 May 2025, para 164 – Grundfos v Hefei Xinhu; UPC_CFI_210/2023 (Mannheim LD), decision of 22 November 2024, para 179 – Panasonic v OPPO; UPC_CFI_733/2024 (Düsseldorf LD), decision of 16 March 2026, paras 228 f. – Trumpf v IPG Laser).

280. As requested by the Claimant, the time limit running from service had to be included in the decision itself as regards the orders for information and recall (UPC_CoA_534/2024, decision of 3 October 2025, headnote 7 and para 240 – Belkin v Philips; UPC_CFI_316/2024 (Düsseldorf LD), decision of 10 December 2025, para 296 – M-A-S v Altech). The requested time limit of three weeks from service of the decision appears appropriate.

IV. Recall, removal from the channels of commerce and destruction

281. The orders for recall, definitive removal from the channels of commerce and destruction are based on Art. 25(a) UPCA in conjunction with Art. 64(1), (2)(b), (d), (e) and (4) UPCA. No grounds for disproportionality are apparent.

V. Penalty payments

282. The threat of penalty payments is based, for the injunction, on Art. 63(2) UPCA and, for the information and the measures of recall, removal from the channels of commerce and destruction, on Art. 82(1), (4) UPCA, R. 354.3 RoP. According to the case law of the Court of Appeal (order of 14 October 2025, UPC_CoA_699/2025, Kodak v Fujifilm, paras 33 f., 41 f.), a specific amount must be set, which may be adjusted downwards taking into account the circumstances of the individual case.

283. The panel considers amounts at the level ordered to be appropriate, but also sufficient, to ensure compliance with the orders.

284. The penalty payments are payable to the Court. In the event of non-compliance, the Court will set the penalty payment taking into account the circumstances of the individual case and proportionality under Art. 82(4), second sentence, UPCA in conjunction with R. 354.4 RoP.

H. Decision on costs in principle and settlement of recoverable costs

285. Under Art. 69(2) UPCA in conjunction with R. 118.5 RoP, a decision on costs in principle must be made.

286. The determination of the amount to be reimbursed by the Claimant [sic – sense requires "the Defendants"] reflects the agreement reached between the parties.

I. (No) security

287. Under Art. 82(2) UPCA, R. 118.8, second sentence, and R. 352.1 RoP, the Court may make any order or measure subject to the provision of security, which it must determine. However, the Defendants have not put forward any circumstances that could give rise to this. The Claimant's alternative request under item III of its requests is therefore moot.

Decision

I. The Defendants are ordered

1. to refrain from

a) metal plates used for manufacturing a deposition mask, which include a first surface and a second surface positioned on the opposite side of the first surface, and which contain iron and nickel, the metal plates comprising:

particles containing as a main component an element other than iron and nickel, the main component being an element having the highest weight% of the elements contained in the particles, wherein:

in a sample including the first surface and the second surface of the metal plate, the following conditions (1), (2) and (5) regarding the particles are satisfied:

(1) the number of particles having an equivalent circle diameter of 1 μm or more is 50 or more and 3000 or less per 1 mm^3 in the sample; and

(2) the number of particles having an equivalent circle diameter of 3 μm or more is 50 or less per 1 mm^3 in the sample, and

(5) the number of particles having an equivalent circle diameter of 5 μm or more is 20 or less per 1 mm^3 in the sample,

wherein the number of particles per 1 mm^3 in the sample is determined as set out in [0123] to [0156] of the description of patent EP 3 805 415 B1, the grant of which was published on 30 November 2022, and wherein

a first ratio of the metal plate is 70% or more;

the first ratio is a ratio of a first quantity to a total quantity;

the total quantity is the number of particles per 1 mm^3 in the sample, the particles having an equivalent circle diameter of 1 μm or more; and the first quantity is the number of particles per 1 mm^3 in the sample, the particles having an equivalent circle diameter of 1 μm or more and less than 3 μm,

in the territory of the Federal Republic of Germany and the French Republic, manufacturing, offering, placing on the market or using such metal plates, or importing or possessing them for those purposes;

– direct infringement of claim 1 –

2. to recall the infringing products referred to in I.1, by informing the third parties from whom the infringing products are to be recalled that this Court has found that the products infringe European Patent EP 3 805 415 B1, the Defendants being required to give the third parties a binding undertaking to reimburse the costs incurred, to bear the packaging and transport costs, to reimburse the customs and storage costs associated with the return of the products and to take the products back, the Claimant being provided – at the Defendants' option – either with a specimen of the recall letters together with a list of the addressees with names and postal addresses, or with a copy of all recall letters;

3. to remove the infringing products referred to in I.1 definitively from the channels of commerce, by the Defendants requesting commercial customers, with reference to the fact that this Court has found that the products infringe European Patent EP 3 805 415 B1, to cancel all orders relating to the products referred to in I.1, and to provide the Court and the Claimant, within 30 days of service of the notification within the meaning of R. 118.8, first sentence, RoP and, where applicable, of the certified translation, with written proof of the measure taken;

4. to hand over each of the infringing products referred to in I.1 which is in the Defendants' direct or indirect possession or ownership to a bailiff to be designated by the Claimant for the purpose of destruction at the Defendants' expense;

5. to provide the Claimant, within three weeks of service of this decision, with information, in a statement structured by each month of the calendar year and by infringing product, on the extent to which they (the Defendants) have committed the acts referred to in I.1 since 30 November 2022 in the territory of the Federal Republic of Germany and the French Republic, stating

a) the origin and distribution channels of the products referred to in I.1, naming

(i) the names and addresses of the manufacturers, producers, distributors, suppliers and other previous holders, and

(ii) the names and addresses of the commercial customers and of the points of sale for which the products were intended;

b) the quantities produced, manufactured, delivered, received or ordered, and the prices paid for the products in question;

c) the identity of all persons involved in the manufacture or distribution of the products referred to in I.1;

copies of the relevant purchase documents (namely invoices, alternatively delivery notes) to be provided as evidence of the information, details requiring confidentiality outside the data subject to disclosure being permitted to be redacted, and the information including the purchase documents to be transmitted at least also in an electronic form capable of being processed by computer;

6. to render accounts to the Claimant, within three weeks of service of this decision, as evidence of the information provided under I.5 together with information on the profit made, of the extent to which they (the Defendants) have committed the acts referred to in I.1 since 30 November 2022 in the territory of the Federal Republic of Germany and the French Republic, stating

a) the individual deliveries, broken down by delivery quantities, times, prices and type designations, and the names and addresses of the customers,

b) the individual offers, broken down by offer quantities, times, prices and type designations, and the names and addresses of the offerees,

c) the advertising carried out, broken down by advertising medium, its circulation, period and area of distribution and, for internet advertising, the internet addresses, periods of placement and access figures,

d) the production costs broken down by individual cost factors, and the profit made,

the statement containing the accounting data to be transmitted at least also in an electronic form capable of being processed by computer, copies of the relevant purchase documents (namely invoices, alternatively delivery notes) to be provided as evidence of the information, details requiring confidentiality outside the data subject to disclosure being permitted to be redacted,

the Defendants being entitled, at their option, to disclose the names and addresses of the non-commercial customers and of the offerees, instead of to the Claimant, to a sworn chartered accountant designated by the Claimant, bound to confidentiality towards it and resident in a Contracting Member State of the UPCA, provided that the Defendants bear the accountant's costs and authorise and oblige the accountant to inform the Claimant, upon specific request, whether a particular delivery, customer or offeree is included in the statement.

II. It is declared

1. that the patent in suit has been infringed by the Defendants in respect of the products referred to in I.1 above;

2. that the Defendants are jointly and severally liable to compensate the Claimant for all damage which it has suffered and will suffer as a result of the acts referred to in I.1 committed since 30 November 2022 in the territory of the Federal Republic of Germany and the French Republic.

III. The Defendants are ordered

1. for each day of non-compliance with the injunction under I.1, to pay to the Court a (where applicable, repeated) penalty payment of at least EUR 10,000, and for each product placed on the market contrary to I.1, a (where applicable, repeated) penalty payment of at least EUR 7,500 per roll;

2. for each day of non-compliance with the orders under I.2, I.3 and I.4, to pay to the Court a penalty payment of at least EUR 10,000;

3. for each day of non-compliance with the orders under I.5 and I.6 after expiry of the time limit stated there, to pay to the Court a penalty payment of at least EUR 5,000.

IV. The action is otherwise dismissed.

V. The counterclaim for revocation is dismissed.

VI. The Defendants shall bear, as joint and several debtors, the costs of the infringement action and of the counterclaim for revocation.

The recoverable costs of the first-instance proceedings (representation costs and all other costs that may be recoverable, including court fees and expert, translation, travel and witness costs) amount to a total of EUR 344,000.00, of which EUR 172,000.00 each is attributable to the infringement action and to the counterclaim for revocation.

Interest accrues on the amount to be reimbursed at 5 percentage points above the base rate under § 247 BGB. Interest runs from the day following the expiry of four weeks after service of the decision of the Düsseldorf Local Division on the merits on the party obliged to reimburse (due date); R. 300 RoP applies accordingly to the calculation of the four-week period.

The parties mutually waive any application under R. 151 RoP, any application for interim reimbursement of costs under R. 118.5 and 150.2 RoP, and any applications under R. 152 RoP.

VII. The value in dispute of the action and of the counterclaim for revocation is set at EUR 1,500,000 each.

VIII. The orders under I.1, I.2, I.3, I.4, I.5 and I.6 are enforceable only after the Claimant has notified the Court which part of the orders it intends to enforce and, where necessary, has filed a certified translation of the orders into the official language of the Contracting Member State in which enforcement is to take place, and after the notification and the (respective) certified translation have been served on the Defendants.

Düsseldorf, 5 November 2026

Names and signatures:

Judge	Signature
Presiding Judge Thomas	Digitally signed (Thomas Ronny, 2026-11-02)
Legally qualified judge Dr Schumacher	Digitally signed (Schumacher Jule Kathrin, 2026-11-02)
Legally qualified judge Dr Zhilova	Digitally signed (Tatyana Borisova Zhilova, 2026-11-02)
Technically qualified judge Parrini	Digitally signed (Lorenzo Salvatore Amerigo Parrini, 2026-11-02)
For the Deputy Registrar	Digitally signed (Laura Chantal Daniel, 2026-11-03)

Information on appeal

Any party which has been unsuccessful, in whole or in part, in its requests may lodge an appeal against this decision with the Court of Appeal within two months of service of the decision (Art. 73(1) UPCA, R. 220.1(a), 224.1(a) RoP).

Information on enforcement (Art. 82 UPCA, Art. 37(2) UPC Statute, R. 118.8, 158.2, 354, 355.4 RoP)

A certified copy of the enforceable decision will be issued by the Deputy Registrar on application by the enforcing party (R. 69 Registry Rules).

This decision was delivered in open court on 5 November 2026.

Presiding Judge Thomas (digitally signed, 2026-11-05)