UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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POSCO CO., LTD. et al,
Petitioner,

v.

ARCELORMITTAL,
Patent Owner.

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Case IPR2024-01377
Patent 11,326,227

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# PETITIONER'S REPLY TO

# PATENT OWNER'S PRELIMINARY RESPONSE

Denial under §325(d) is not warranted and GMW14400 is prior art.

## I. The Petition Established That the Examiner Erred in a Way Material to Patentability of the '227 Patent

### A. The aspects of the prior art cited against the independent claims were not previously discussed or applied

The record is silent as to the specific prior art teachings cited in the Petition. Only a single rejection was issued during examination of the '227 Patent, and that rejection cited Laurent and Cornette, which are applied in the Petition only against dependent claims. EX-1002, 199-205.

For prior art applied against the independent claims, Patent Owner overstates the extent to which Engels, Takagi, Hein, and GMW14400 were substantively considered. For Ground 1A, the Examiner's only consideration of Engels was through citation in a lengthy IDS early on during examination of the '227 Patent. Indeed, Engels was listed in a set of IDSs that cited ***190*** references, such that Engels was considered by the Examiner with ***189*** other references. EX-1002, 70-103. Such limited evaluation does not warrant §325(d) denial.

Despite this history, Patent Owner states that Engels was "discussed and/or applied during the prosecution of the '227 Patent, the related '602 Patent, the related '683 Patent, or the '683 Patent IPR." POPR, 4. However, Engels was not discussed or applied by the Examiner that issued the '227 Patent. The only discussion of Engels occurred during an IPR of the '683 Patent—a different patent

with different claims. And that discussion was before the Board, not the Examiner. It also resulted in cancellation of all challenged claims of the '683 Patent. A ***successful*** challenge to a ***different*** patent before a ***different*** entity has little relevance to §325(d)'s inquiry of whether the same prior art/arguments were previously presented to the Office and overcome.

Moreover, the '683 Patent IPR includes no discussion of the teachings for which Engels is cited against the independent claims here, e.g., Engels' coating with thickness greater than 30 μm and Engels' layers with compositions that satisfy the independent claims. Engels was "discussed during the '683 Patent IPR" only to the extent Engels was applied as a secondary reference against a single dependent claim to teach the thickness of a single layer of a multilayer coating. In that IPR, Patent Owner's arguments focused on Engels' alleged failure to teach a "coated stamped product," an argument that is not replicated in the POPR and that bears only on the non-limiting preambles of the claims. Petition, 9-12. Engels was not otherwise discussed or applied in relation to the '227, '602, or '683 Patents.

For Ground 2A, like Engels, Hein and GMW14400 were merely cited in an IDS but not discussed or applied in any rejection. EX-1002, 72, 88. The record also is silent as to the teachings for which Takagi is cited against the independent claims. During examination of the related '602 Patent, Patent Owner, ***not the Examiner***, independently raised Takagi to argue that Takagi failed to teach a

coating thickness greater than 30 μm. EX-2001 (IPR2024-1376), 879, 912-912. Takagi's coating thickness was also the focus of discussion during prosecution of the '683 Patent. But the Petition cites Takagi for its teachings of layer compositions, not for a coating thickness, which is taught by Hein and GMW14400 in combination with Takagi—a combination not discussed or applied. Patent Owner does not contend that the portions of Takagi's teachings applied here were ever noted or discussed prior to the present Petition.

### B. The Examiner erred by failing to consider the cited teachings of the prior art and the Petition presents additional evidence

The second part of the *Advanced Bionics* framework is not satisfied when the prosecution history provides little insight into the examiner's evaluation of prior art and the petitioner demonstrates a reasonable likelihood of success. In *Samsung Electronics Co. Ltd. v. Evolved Wireless LLC*, the examiner's evaluation was not "well developed" or was "silent," so the petition's showing was "sufficient to establish that the Examiner erred because Petitioner has shown that the Examiner overlooked the particular combination of the [prior art references], which were among the hundreds of references listed on the IDS." IPR2021-00943, Pap. 9, 12 (PTAB Dec. 1, 2021); *see also Tokyo Ohka Kogyo Co. Ltd. v. Fujifilm Elec. Materials USA Inc.*, PGR2022-00010, Pap. 9, 8-9 (PTAB 2022). Here, the prosecution history similarly provides little or no insight on the aspects of the prior

art that the Petition applies against the independent claims. None of Engels, Hein, or GMW14400 was ever applied or discussed by the Examiner that issued the '227 Patent, and these references establish a reasonable likelihood of success. Indeed, the POPR's only substantive argument against Engels requires a narrow interpretation of the claimed superficial layer and requires the presence of an undisclosed sixth phase in Engels when Engels expressly discloses "[f]ive phases." EX-1005, 142. The POPR also makes no substantive challenge to the second grounds, arguing only that GMW14400 is not a printed publication. Because the Examiner failed to identify these highly relevant teachings and apply them, the Examiner erred in issuing the '227 Patent.

Additionally, although Takagi was discussed by Patent Owner during examination of the related '602 Patent and relied upon in the '683 Patent examination, Takagi was not considered in combination with Hein or GMW14400. The Petition also presents additional evidence that clearly rebuts Patent Owner's statements about Takagi made during examination of the '602 Patent. During examination, Patent Owner stated that "there is simply no indication that the Takagi heat treatment process would increase [its 10~20 micrometer] coating layer" to greater than 30 micrometers and, "if Takagi were so modified, is there any indication that the layer compositions … would be attained." EX-2001 (IPR2024-1376), 878-879. But that is precisely the additional evidence supplied by

Hein, GMW14400, and Dr. Miles to demonstrate that Takagi's pre-treatment coating layer would achieve the required thickness and compositions post-treatment. Petition, 61-65. Notably, the POPR does not substantively challenge this analysis and it warrants consideration.

Finally, cases cited by Patent Owner are distinguishable. POPR, 5-6. The decision in *Microsoft Corp. v. AlmondNet, Inc.* was based not only on the art's presentation during prosecution but also on the petitioner's lack of "further explanation" on how the art was "not substantively considered during the prosecution." *Microsoft Corp. v. AlmondNet, Inc.*, IPR2022-01319, Paper 9 at 11 (Jan. 30, 2023). Similarly, denial of institution in *Ivantis, Inc. v. Sight Scis., Inc.* was based on petitioner failing to "specifically address the material-error prong of the *Advanced Bionics* framework." *Ivantis, Inc. v. Sight Scis., Inc.*, IPR2022-01540, Paper 14 at 13 (PTAB Mar. 22, 2023). But Petitioner both here and in the Petition has noted the specific aspects of the references that the Examiner failed to consider, giving rise to material error. Petition, 86-87.

## II. GMW14400 Is Prior Art

### A. GMW14400 was publicly available as of December 1, 2005

Patent Owner argues that, although GMW14400 was "listed in [IHS]'s database and available to the public for purchase online since December 1, 2005," public accessibility has not been sufficiently demonstrated. EX-1027, 26; POPR,

16-24. The question of public accessibility hinges on whether a "document has been disseminated or otherwise made available to the extent that persons interested and ordinarily skilled in the subject matter or art exercising reasonable diligence, can locate it." *Kyocera Wireless Corp. v. Int'l Trade Comm'n*, 545 F.3d 1340, 1350 (Fed. Cir. 2008). Thus, the POPR relies on the proposition that a POSITA would not have been able to locate standards provided by IHS.

But Petitioner has provided ample evidence that GMW14400 would have been locatable by interested persons. ***First***, the Petition demonstrates that IHS's standards database was indexed and searchable. For example, IHS's homepage included both a "Title/keywords" search and indexing by industry, including "Automotive," the industry of GMW14400. EX-1027, 30. In contrast to previous cases in which references indexed by only author or date were found to not have been publicly accessible, GMW14400's identifiability by keyword search and industry indexing constitutes "*meaningful*[] index[ing] such that an interested artisan exercising reasonable diligence would have found it." *Acceleration Bay, LLC v. Activision Blizzard Inc.*, 908 F.3d 765, 774 (Fed. Cir. 2018).

***Second***, the Petition establishes that a POSITA would have known to search IHS's collection in order to locate GMW14400. Dr. Miles comments that "[i]t would have been typical for a researcher in industry or academia to review standards such as GMW14400 to learn about industrial objectives and steel

processing, for example, in order to guide internal design and research," and, as of 2003, IHS claimed to have "the world's largest collection of technical standards." EX-1027, 33; EX-1003, 144. Further, IHS had a longstanding history as a standards provider (dating back to 1959) and had launched its online "Standards Store" in 2000, five years before the publication of GMW14400. EX-1027, 26. As such, the record establishes IHS's collection as a known source for standards such as GMW14400. *Voter Verified, Inc. v. Premier Election Solutions, Inc.*, 698 F.3d 1374, 1380-81 (Fed. Cir. 2013) ("more than 100 articles" in the same field, being "open to any internet user," being "well known to the community," and including its "own search functions"). Indeed, the ***purpose*** of preparing standards such as GMW14400 was to disseminate the standards publicly to ensure that supplied parts would conform to General Motors' requirements. EX-1003, 140.

This scenario contrasts with the authority cited by Patent Owner. *ENS Labs LTD. v. Unstoppable Domains Inc.*, IPR2024-0087, Paper 8 at 20 (Nov. 22, 2024) (documents available on a website without evidence of "a reliable search functionality") and *International Business Machines Corp. v. Envisionit, LLC.*, IPR2017-01246, Paper 7 at 15 (in which there was no "evidence of whether and how [the] website was indexed and cataloged").

Patent Owner highlights the 2003 dates of the cited Internet Archive captures of IHS's website to assert that these captures "do[] not provide any

information about what was on those webpages at the time GMW14400 was supposedly published in November 2005." POPR, 21. But Patent Owner provides no basis for the suggestion that IHS would have significantly removed search or indexing functionality between 2003 and 2005.

### B. Institution requires only a reasonable likelihood that GMW14400 is a printed publication

"[T]he statutory 'reasonable likelihood' standard for institution applies to the issue of whether a reference is a printed publication." *Hulu, LLC v. Sound View Innovations, LLC.*, IPR2018-01039, Paper 29, 12 (Dec. 20, 2023). This standard is "lower than the 'preponderance' standard to prevail in a final written decision." *Id*., 13. The evidence cited in declarations from Ms. Schuster and Ms. Munford, in conjunction with Dr. Miles' discussion, satisfies a reasonable likelihood standard.

Further, "limited opportunities exist for the petitioner to present new evidence [for printed publication status] later." *Hulu* at 14. After institution, Petitioner would welcome the opportunity to further develop the record by submitting evidence responsive to Patent Owner's arguments, e.g., expert testimony as to the well-known nature of IHS's standards' collection, and website captures evidencing searching on IHS's website on the Dec. 1, 2005 date.

Dated January 21, 2025

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**CERTIFICATE OF SERVICE**

Pursuant to 37 CFR §§ 42.6(e)(4) and 42.205(b), the undersigned certifies that on January 21, 2025, a complete and entire copy of this Petitioner's Reply to Patent Owner's Preliminary Response was provided by email to the Patent Owner by serving the correspondence address of record as follows:

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