

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

3M COMPANY,
Petitioner,

v.

BAY MATERIALS, LLC,
Patent Owner.

IPR2023-00243
Patent 10,870,263 B2

Before GRACE KARAFFA OBERMANN, CHRISTOPHER L. CRUMBLEY,
and KRISTINA M. KALAN, *Administrative Patent Judges*.

OBERMANN, *Administrative Patent Judge*.

DECISION
Denying Institution of *Inter Partes* Review
35 U.S.C. § 314(a)

I. INTRODUCTION

3M Company (“Petitioner”) filed a Petition (Paper 3, “Pet.”) for *inter partes* review of claims 1–4, 7, 11–14, 16, 18, and 31 of U.S. Patent No. 10,870,263 B2 (Ex. 1101, “the ’263 patent”). Bay Materials, LLC (“Patent Owner”) filed a Preliminary Response. Paper 7 (“Prelim. Resp.”).

A. Real Parties-in-Interest

Petitioner asserts 3M Company is the real party-in-interest. Pet. 1. Patent Owner asserts the real party-in-interest is Bay Materials, LLC, a wholly-owned subsidiary of Straumann Manufacturing, Inc. Paper 4, 1.

B. Related Matters

Both parties identify as a related matter co-pending district court litigation in *Bay Materials LLC v. 3M Company*, No. 1:21-cv-1610-RGA (D. Del.) (“the District Court action”).¹ Pet. 1; Paper 4, 1.

Both parties further identify as related matters the co-pending administrative proceedings in IPR2022-01214 (“IPR214”) and IPR2022-01215 (“IPR215”). Pet. 3; Paper 4, 1–2. The Board issued decisions instituting review in those proceedings on January 18, 2023. IPR214, Paper 16; IPR215, Paper 16. IPR214 and IPR215 are not joined or

¹ The Petition was filed December 5, 2022. Patent Owner presents information, not meaningfully contested on this record, that Petitioner was served the complaint in the District Court action more than one year prior to the filing of the Petition. *Compare* Prelim. Resp. 26–31 (arguments and evidence showing Petitioner was served the complaint in the District Court action no later than December 3, 2021), *with* Pet. 5 n.2 (entirety of Petitioner’s argument addressing service, consisting of a bare assertion that “Patent Owner did not properly serve Petitioner with the district court complaint until December 6, 2021”). Ultimately, in this case, we exercise our discretion to deny review under 35 U.S.C. § 314(a). Accordingly, we do not address whether the Petition is time-barred under 35 U.S.C. § 315(b).

consolidated, but final arguments in those proceedings are set to be heard together in a consolidated hearing on October 20, 2023. IPR214, Paper 17, 11; IPR215, Paper 17, 11.

II. BACKGROUND

A. The '263 Patent (Ex. 1101)

The '263 patent, titled “Dual Shell Dental Appliance and Material Constructions,” relates to “[a] polymeric sheet composition” having “at least two outer layers” and “an elastomeric inner layer.” Ex. 1101, code (54) (Title), 25:2–4 (claim 1). A further limitation requires that “one or both of the outer layers” must “individually comprise a thermoplastic polymer having a flexural modulus of from about 1,000 MPa to 2,500 MPa.” *Id.* at 22:4–7. The term “flexural modulus” relates “to the rigidity of a material” or its resistance to bending or stretching. *Id.* at 6:54–56; 7:3–5.

The '263 patent indicates that the polymeric sheets of the invention “are useful, for example, in a dental appliance, and are constructed of layers that impart flexibility and strength and stain resistance.” *Id.* at 1:19–23.

B. Challenged Claims

Claim 1, which we reproduce below, is representative of the subject matter of the claimed invention.

1. A polymeric sheet composition comprising:

at least two outer layers A and C and an elastomeric inner layer B, wherein one or both of the outer layers A and C individually comprise a thermoplastic polymer having a flexural modulus of from about 1,000 MPa to 2,500 MPa, and the inner layer B is comprised of an elastomeric material having a hardness from about A60 to D85.

Ex. 1101, 25:2–9.

C. Asserted Grounds of Unpatentability

Petitioner challenges the patentability of claims 1–4, 7, 11–14, 16, 18, and 31 on five grounds:

| Ground | Challenged Claim(s) | 35 U.S.C. § ² | Reference(s) |
|--------|---------------------|--------------------------|---|
| 1 | 1 | 103 | Hinz ³ , Durasoft (TPU/PC) Data Sheet ⁴ , Durasoft (TPU/PETG) Data Sheet ⁵ , Imprelon S (Copolyester) Data Sheet |
| 2 | 2–4 | 103 | Hinz, Durasoft (TPU/PC) Data Sheet, Durasoft (TPU/PETG) Data Sheet, Imprelon |

² The Leahy-Smith America Invents Act (“AIA”), Pub. L. No. 112-29, 125 Stat. 284 (2011), revised 35 U.S.C. § 103 effective March 16, 2013. Petitioner asserts an effective filing date of the ’263 patent of May 31, 2018. Pet. 6. As we did in IPR215, we refer to the AIA version of Section 103. IPR215, Paper 16 at 5–6 n.1. In any event, neither party indicates that the result would change based on the version of the statute applied by the Board.

³ WO 20010/043419 A1, published Apr. 22, 2010, with English Translation (Ex. 1117).

⁴ Produktdatenblatt DURASOFT with English Translation, available at https://web.archive.org/web/20160808102931/https://www.scheu-dental.com/fileadmin/medienablage/SCHEU-DENTAL/Downloads/Produktdatenblätter/Produktdatenblatt-DURASOFT_bis-LOT-1614A.pdf (Ex. 1119).

⁵ Produktdatenblatt DURASOFT with English Translation, available at https://web.archive.org/web/20160808110356/https://www.scheu-dental.com/fileadmin/medienablage/SCHEU-DENTAL/Downloads/Produktdatenblätter/Produktdatenblatt-DURASOFT_ab-LOT-1714A.pdf (Ex. 1121).

| Ground | Challenged Claim(s) | 35 U.S.C. § ² | Reference(s) |
|--------|---------------------|--------------------------|---|
| | | | S (Copolyester) Data Sheet ⁶ , Sun ⁷ |
| 3 | 7, 31 | 103 | Hinz, Durasoft (TPU/PC) Data Sheet, Durasoft (TPU/PETG) Data Sheet, Imprelon S (Copolyester) Data Sheet, Sun, Handbook of Thermoplastics ⁸ |
| 4 | 11 | 103 | Li ⁹ , Boronkay ¹⁰ , Chen ¹¹ |
| 5 | 12–14, 16, 18 | 103 | Li, Boronkay, Chen, Stewart ¹² |

Pet. 5. Petitioner relies on the Declaration of Alan Jeffrey Giacomini, Ph.D. (Ex. 1102).

⁶ Produktdatenblatt IMPRELON S pd with English Translation, available at https://web.archive.org/web/201608092/https://www.scheu-dental.com/fileadmin/medienablage/SCHEU-DENTAL/Downloads/Produktdatenbl%c3%A4tter/Produktdatenblatt-IMPRELON-S_ab-LOT-315A.pdf (Ex. 1123).

⁷ US Pub. 2004/0224283 A1, published Nov. 11, 2004 (Ex. 1124).

⁸ HANDBOOK OF THERMOPLASTICS, Second Edition, Chapter 9: Thermoplastic Polyesters, edited by Olagoke Olabisi, Kolapo Adewale, CRC Press, copyrighted 2016 (Ex. 1125).

⁹ US Patent No. 9,655,691, issued May 23, 2017 (Ex. 1127).

¹⁰ WO2017/007962 A1, published Jan. 12, 2017 (Ex. 1128).

¹¹ US Patent No. 8,758,009, issued Jun 24, 2014 (Ex. 1129).

¹² WO2013/130552 A1, published Sept. 6, 2013 (Ex. 1130).

III. ANALYSIS

The Petition in IPR215 was filed by Petitioner about five months prior to the instant Petition and challenges the same patent claims. *Compare* IPR215, Paper 2, 5, *with* Pet. 5 (grounds chart in each proceeding, both of which challenge claims 1–4, 7, 11–14, 16, 18, and 31 of the ’263 patent). Because Petitioner has filed staggered, multiple petitions challenging the same claims of the same patent, we first consider whether we should exercise our discretion to deny the second petition under § 314(a), which invests the Director, and by delegation the Board, “with discretion on the question whether to institute review.” *SAS Inst., Inc. v. Iancu*, 138 S. Ct. 1348, 1356 (2018); *see Harmonic Inc. v Avid Tech., Inc.*, 815 F.3d 1356, 1367 (Fed. Cir. 2016) (“[T]he PTO is permitted, but never compelled, to institute an IPR proceeding.”).

The Patent Trial and Appeal Board Consolidated Trial Practice Guide (Nov. 2019) (“CTPG”)¹³ states that generally “one petition should be sufficient to challenge the claims of a patent in most situations” and that “multiple petitions by a petitioner are not necessary in the vast majority of cases.” CTPG 59. “[T]o aid the Board’s assessment of ‘the potential impacts on both the efficiency of the *inter partes* review process and the fundamental fairness of the process for all parties,’” we consider a number of non-exclusive factors, “especially as to ‘follow-on’ petitions challenging the same patent as challenged previously in an IPR.” *Id.* at 56. Those factors are:

1. whether the same petitioner previously filed a petition directed to the same claims of the same patent;

¹³ Available at <https://www.uspto.gov/TrialPracticeGuideConsolidated>.

2. whether at the time of filing of the first petition the petitioner knew of the prior art asserted in the second petition or should have known of it;

3. whether at the time of filing of the second petition the petitioner already received the patent owner's preliminary response to the first petition or received the Board's decision on whether to institute review in the first petition;

4. the length of time that elapsed between the time the petitioner learned of the prior art asserted in the second petition and the filing of the second petition;

5. whether the petitioner provides adequate explanation for the time elapsed between the filings of multiple petitions directed to the same claims of the same patent;

6. the finite resources of the Board; and

7. the requirement under 35 U.S.C. § 316(a)(11) to issue a final determination not later than 1 year after the date on which the Director notices institution of review.

Id. at 57 (citing *General Plastic Co., Ltd. v. Canon Kabushiki Kaisha*, IPR2016-01357, slip op. 16–17 (PTAB Sept. 6, 2017) (Paper 19) (precedential) (“*General Plastic*”)).

The Petition does not address the precedential *General Plastic* decision, much less assess the above-listed factors that plainly control the result in this case.¹⁴ See Pet. 6 (single paragraph devoted to discretionary

¹⁴ Petitioner, in the Petition as well as in a Notice of Multiple Petitions (Paper 1), argues that the instant Petition is warranted to present grounds

denial under § 314(a) that does not touch on the analysis applicable to staggered, multiple petitions filed by the same petitioner against the same patent claims). Patent Owner, by contrast, devotes the bulk of its Preliminary Response to an assessment of the *General Plastic* factors. Prelim. Resp. 9–26. Petitioner did not request authorization to file a reply brief responding to any issue in the Preliminary Response. Our findings and conclusions, set forth below, are supported by the unchallenged information advanced by Patent Owner.

Factor 1

The instant Petition and the IPR215 Petition challenge the same claims of the same patent, and both were filed by Petitioner. Prelim. Resp. 11. “The complete overlap in the challenged claims,” along with the circumstance that the same petitioner filed both petitions, “favor[s] denying institution.” *Id.* (quoting *Valve Corp. v. Elec. Scripting Prods., Inc.*, IPR2019-00064, Paper 10 at 11 (PTAB May 1, 2019) (“*Valve*”).

Factor 2

Patent Owner directs us to uncontested evidence tending to show that, no later than March 4, 2022, Petitioner knew of, or should have known of, each prior art reference asserted in the grounds of unpatentability. Prelim. Resp. 13–16 (and evidence cited therein). For example, Petitioner knew of

keyed to an effective filing date that differs from the date asserted in the Petition in IPR215. Paper 1, 1; Pet. 6–7. Although that circumstance may support the filing of two petitions on about the same day, Petitioner does not advance a reason, and none is evident on this record, why that circumstance justifies a nearly five-month delay between staggered petitions. Paper 1, 1; Pet. 6 (quoting CTPG, 26).

Hinz and the *Handbook of Thermoplastics* no later than March 4, 2022, when Petitioner filed a brief in the District Court action that identified those references. *Id.* at 13 & n.5.

Patent Owner provides a chart that sets forth the earliest date by which each reference asserted in the Petition was known or should have been known by Petitioner. *Id.* at 16–15 (date chart). Each date advanced in Patent Owner’s date chart precedes the filing of the Petition in IPR215 and is supported by an explanation and objective evidence. *Id.* at 13–16.

On this record, where Petitioner presents no countervailing evidence on the issue, we determine that each prior art reference was known or quickly available to Petitioner no later than March 4, 2022, well before the filing of the Petition in IPR215. This factor favors denial of institution. *Id.* (citing *Valve*, Paper 10 at 12) (knowledge of asserted art, or an ability to quickly locate the art, favors denying institution).

Factor 3

Petitioner received Patent Owner’s Preliminary Response in IPR215 before filing the instant Petition. Prelim. Resp. 8, 16–17 (Preliminary Response in IPR215 filed on October 24, 2022; Petition filed on December 5, 2022). Patent Owner alleges that “Petitioner did in fact” craft arguments in the instant Petition based on positions presented in the Preliminary Response in IPR215. *Id.* at 19–20. We observe only that Petitioner had the opportunity to do so, because that earlier filing was public prior to the filing of the instant Petition. “The Board has recognized ‘the potential for abuse’ in situations like this one and has exercised its discretion to deny institution” under similar circumstances. *Id.* at 20 (quoting *General Plastic*, Paper 19 at 16–17). This factor favors denying institution.

Factors 4 and 5

Petitioner makes no attempt to explain its nearly five-month delay between filing the Petition in IPR215 and filing the instant Petition. Prelim. Resp. 21. As Patent Owner points out, the Petition in IPR215 expressly states Petitioner’s intention to file the instant Petition. *Id.* at 8, 23; IPR215, Paper 2 at 3. Petitioner provides “no explanation of its decision to wait” nearly five months to carry out that intention. Prelim. Resp. 23. An inadequately explained delay of similar length supported denial of institution in *Valve*, even where a *different* petitioner filed the second petition. *Id.* 21–22 (citing *Valve*, Paper 10 at 15). Both the length of the delay (factor 4) and Petitioner’s failure to explain the delay (factor 5) favor denying institution.

Factors 6 and 7

As a general rule, we view multiple, staggered petitions that challenge the same patent claims as “unfair to patent owners and . . . an inefficient use of the *inter partes* review process.” Prelim. Resp. 25 (quoting *General Plastic*, Paper 19 at 17–18). Going forward on the instant Petition “would be an inefficient use of the Board’s resources,” where Petitioner, under 35 U.S.C. § 315(e)(1), may be estopped “from maintaining this proceeding because it challenges the same claims on grounds that,” on this record, Petitioner “reasonably could have raised in the” IPR215 Petition or a second petition filed concurrently with the IPR215 Petition. *Id.* at 25–26.

Conservation of the Board’s finite resources (factor 6) and the requirement that the Board issue a ruling within one year of institution in IPR215 (factor 7) favor denial of institution.

IV. CONCLUSION

“Multiple, staggered petitions challenging the same patent and same claims raise the potential for abuse.” *General Plastic*, Paper 19 at 17.

Petitioner filed the instant Petition, which challenges the same claims of the same patent at issue in IPR215, nearly five months after Petitioner filed the Petition in IPR215. Petitioner does not address the *General Plastic* factors that apply to the filing of multiple, staggered petitions, much less justify the time gap between those filings. Taking a holistic view of the totality of the circumstances presented, on this record, we exercise our discretion under § 314(a) and do not institute an *inter partes* review.

V. ORDER

It is

ORDERED that the Petition is *denied* and no *inter partes* review is instituted.

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