

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

3M COMPANY,
Petitioner,

v.

BAY MATERIALS, LLC,
Patent Owner.

Case IPR2023-00243
U.S. Patent No. 10,870,263

PATENT OWNER'S PRELIMINARY RESPONSE

TABLE OF CONTENTS

I.	Introduction	1
II.	Overview of the Related Proceedings	2
A.	District Court Proceedings Involving the '263 Patent	2
1.	Service of Patent Owner's Complaint in November 2021	2
2.	Petitioner's Prior Reliance on the Asserted Art	4
B.	Parallel <i>Inter Partes</i> Review Proceedings	7
III.	The Board Should Deny the Second '263 Petition Under 35 U.S.C. § 314(a) in View of the Parallel Proceedings	9
A.	Factor 1: Petitioner Previously Filed the First '263 Petition Challenging the Exact Same Claims at Issue Here	11
B.	Factor 2: Petitioner Knew of All the Prior Art in the Second '263 Petition When It Filed the First '263 Petition (If Not Long Before).....	12
C.	Factor 3: Petitioner Received Patent Owner's Preliminary Responses to the First '263 Petition and the '630 Petition Before Filing the Second '263 Petition	16
D.	Factors 4 and 5: Petitioner Fails to Explain Its Lengthy Delay in Filing the Second '263 Petition After Learning of the Asserted Art and Filing the First '263 Petition.....	21
E.	Factors 6 and 7: The Finite Resources of the Board and the Requirement that the Board Issue a Ruling Within One Year of Institution Weigh in Favor of Discretionary Denial	25
F.	All the <i>General Plastic</i> Factors Weigh in Favor of the Board Exercising Its Discretion to Deny the Second '263 Petition	26
IV.	The Board Should Deny Institution Under 35 U.S.C. § 315(b)	26
V.	Conclusion	31

TABLE OF AUTHORITIES

Cases	Page(s)
<i>Apple Inc. v. Uniloc 2017 LLC</i> , IPR2020-00854, Paper 9 (PTAB Oct. 28, 2020)	<i>passim</i>
<i>Click-to-Call Techs. LP v. Ingenio, Inc.</i> , 899 F.3d 1321 (Fed. Cir. 2018)	27, 30
<i>Gen. Plastic Indus. Co. v. Canon Kabushiki Kaisha</i> , IPR2016-01357, -01358, -01359, -01360, -01361, Paper 19 (PTAB Sept. 6, 2017)	<i>passim</i>
<i>GoPro, Inc. v. 360Heroes, Inc.</i> , IPR2018-01754, 2019 WL 3992792 (PTAB Aug. 23, 2019)	30
<i>Henderson v. United States</i> , 517 U.S. 654 (1996)	30
<i>In re Peterson</i> , 315 F.3d 1325 (Fed. Cir. 2003)	20
<i>Microsoft Corp. v. Worlds Inc.</i> , IPR2021-00277, 2021 WL 2460652 (PTAB June 16, 2021)	27, 30
<i>NVIDIA Corp. v. Samsung Elecs. Co.</i> , IPR2016-00134, Paper 9 (PTAB May 4, 2016)	10
<i>Valve Corp. v. Elec. Scripting Prods., Inc.</i> , IPR2019-00064, -00065, -00085, Paper 10 (PTAB May 1, 2019)	<i>passim</i>
Statutes	
35 U.S.C. § 314(a)	1, 9, 26
35 U.S.C. § 315(b)	<i>passim</i>
35 U.S.C. § 315(e)(1)	25-26
Rules	
Fed. R. Civ. P. 4(h)(1)(B)	27

EXHIBIT LIST

EXHIBIT	DESCRIPTION
2001	Email correspondence from Jay Issa, Global Business Leader, 3M Oral Care, to Chip Hennen of Bay Materials, dated Jan. 8, 2021, and to T. Ross, dated Jan. 10, 2021
2002	<i>Bay Materials, LLC v. 3M Company</i> , No. 21-1610-RGA-JLH, D.I. 5, Summons in a Civil Action (D. Del. Nov. 15, 2021)
2003	3M Registered Agent Information for the Corporation Trust Company available at Department of State: Division of Corporations at Delaware.gov.
2004	Email correspondence from Steven J. Balick, Ashby & Geddes, dated Dec. 3, 2021, forwarding email correspondence from Eva Mendelsohn, Director, Assistant General Counsel, 3M Legal Affairs, to Steven J. Balick, regarding <i>Bay Materials v. 3M</i> , Case No. 21-cv-0161 (D. Del.), dated Dec. 3, 2021
2005	Email correspondence from Charles Collins-Chase, Finnegan, to Eva Mendelsohn, Director, Assistant General Counsel, 3M Legal Affairs, regarding <i>Bay Materials v. 3M</i> , Case No. 21-cv-0161 (D. Del. Dec. 7, 2021)
2006	<i>Bay Materials, LLC v. 3M Company</i> , No. 21-1610-RGA-JLH, D.I. 88, Declaration of Dr. Alan Jeffrey Giacomini (D. Del. Mar. 4, 2022) (redacted public version)
2007	<i>Bay Materials, LLC v. 3M Company</i> , No. 21-1610-RGA-JLH, Defendant 3M Company's Identification of Prior Art References (D. Del. Apr. 15, 2022)
2008	<i>Bay Materials, LLC v. 3M Company</i> , No. 21-1610-RGA-JLH, Defendant 3M Company's Amended Identification of Prior Art References (D. Del. Aug. 4, 2022)
2009	U.S. Patent Application Publication No. US 2009/0130624 A1 to Sun et al. ("2009 Sun")

EXHIBIT	DESCRIPTION
2010	<i>Andover Healthcare, Inc. v. 3M Company</i> , No. 1:13-cv-00843-LPS, D.I. 9, First Amended Complaint For Patent Infringement (D. Del. July 5, 2013)
2011	<i>Andover Healthcare, Inc. v. 3M Company</i> , No. 1:13-cv-00843-LPS, D.I. 10, 3M's Answer to First Amended Complaint (D. Del. July 29, 2013)

I. Introduction

Patent Owner respectfully requests that the Board deny institution of the Petition, Paper 3 (the “Second ’263 Petition”), for two reasons. First, the Board should exercise its discretion to deny institution under 35 U.S.C. § 314(a) in view of two pending *inter partes* review proceedings that were filed more than five months before the Second ’263 Petition:

- IPR2022-01215 (filed July 19, 2022), which challenges the same claims of U.S. Patent No. 10,870,263 (“the ’263 patent”) as the Second ’263 Petition; and
- IPR2022-01214 (filed July 11, 2022), which relies on the same art as in Grounds 1-3 of the Second ’263 Petition to challenge claims of U.S. Patent No. 10,946,630 (“the ’630 patent”), which is in the same patent family as the ’263 patent.

Second, the Board should deny institution under 35 U.S.C. § 315(b) because Petitioner filed the Second ’263 Petition more than one year after Patent Owner served a summons and complaint alleging infringement of the ’263 patent in the related district court action against Petitioner.

II. Overview of the Related Proceedings

A. District Court Proceedings Involving the '263 Patent

1. Service of Patent Owner's Complaint in November 2021

In January 2021, Petitioner reached out to Patent Owner to discuss licensing its patents covering multilayer polymers used to make clear dental aligners, including the '263 patent. Ex. 2001; Ex. 1103, ¶¶ 8-9. The parties did not enter into any license agreement, but later in 2021, without any license from Patent Owner, Petitioner nonetheless introduced its infringing product to the market. *See, e.g.*, Ex. 1103, ¶¶ 8-9.

Patent Owner filed a complaint on November 15, 2021, in the District of Delaware, alleging infringement of the '263 and '630 patents. Ex. 1103. Patent Owner simultaneously filed a motion seeking a preliminary injunction. Ex. 1115. That same day, Patent Owner served the complaint on Corporate Trust Corporation ("CT Corporation"), who was (and remains) listed as Petitioner's registered agent on the Delaware Secretary of State website. Ex. 2002; Ex. 2003. The complaint and the accompanying exhibits were also available in unredacted form on the district court's public docket.

On December 3, 2021, the last business day before Petitioner's deadline to answer Patent Owner's complaint, Petitioner's in-house counsel sent an email to Patent Owner's Delaware counsel claiming that CT Corporation was not

authorized to accept service on Petitioner's behalf. Ex. 2004. Petitioner's email attached a letter that CT Corporation purportedly sent to Patent Owner's Delaware counsel stating that CT Corporation was not 3M Company's registered agent.¹ *Id.*; Ex. 1106. The letter, dated November 16, 2021, identifies the district court action by case name and docket number and states that "CT was unable to forward." Ex. 1106. Despite this representation, however, it is apparent from Petitioner's December 3, 2021, email forwarding CT Corporation's letter to Patent Owner's counsel that CT Corporation had contacted Petitioner regarding the complaint and, moreover, that Petitioner did in fact receive both notice of the service of Patent Owner's complaint and a copy of the letter that CT Corporation purportedly had sent to Patent Owner's counsel. Ex. 2004.

Petitioner's December 3, 2021, email to Patent Owner's counsel, which similarly identified the district court case by name and docket number, offered to waive service of the complaint. Ex. 2004. And, while Petitioner stated that CT Corporation was not authorized to accept service, Petitioner did not specify whether CT Corporation had nonetheless provided a copy of the complaint in

¹ Bay's counsel never received a copy of CT Corporation's letter until it was forwarded by Petitioner's in-house counsel on December 3, 2021. Ex. 2004; Ex. 1106.

addition to providing Petitioner with a copy of the letter. *Id.* Regardless, Petitioner had notice of Patent Owner's infringement suit involving the '630 and '263 patents by way of receiving a letter from CT Corporation identifying the case by name and docket number. *Id.*; Ex. 1106.

To avoid further delay by Petitioner, and without acquiescing to Petitioner's assertions regarding CT Corporation, on December 6, 2021, Patent Owner served the complaint on the other entity listed on the Delaware Secretary of State's website as a registered agent for Petitioner. Pet. 1-2; Ex. 1104. Patent Owner also sent a copy of the publicly available papers to Petitioner's in-house counsel. Ex. 2005.

2. Petitioner's Prior Reliance on the Asserted Art

On March 4, 2022, after Petitioner conducted depositions and other discovery in connection with Patent Owner's motion for preliminary injunction, Petitioner filed its opposition brief. Ex. 1110. Petitioner's brief included prior-art-based invalidity challenges to both the '263 and '630 patents, relying on several of the same prior-art references cited in the grounds of the Second '263 Petition. *See, e.g., id.* at 17-19. Petitioner also challenged the priority of the '263 patent claims. *Id.* at 18-19. The opposition was accompanied by an expert declaration from Alan Jeffrey Giacomini, Ph.D., the same witness who provided a declaration for the Second '263 Petition and for Petitioner's two previous petitions challenging the

'263 and '630 patents. Ex. 2006; Ex. 1102; *see also* IPR2022-01214, Ex. 1002; IPR2022-01215, Ex. 1002.

On April 15, 2022, as part of the preliminary injunction proceedings, Petitioner served its identification of prior-art references (Ex. 2007), which includes nearly every reference cited in the grounds of the Second '263 Petition:

- WO 2017/007962 A1 (“Boronkay”) (Ex. 1128)
- US 8,758,009 B2 (“Chen”) (Ex. 1129)
- WO 2013/130552 A1 (“Stewart”) (Ex. 1130)
- WO 2010/043419 A1 (“Hinz”) (Ex. 1117)
- Scheu-Dental GmbH’s Durasoft® material (Exs. 1119, 1121)
- US 2009/0130624 A1 (“2009 Sun”)² (Ex. 2009)

Ex. 2007. Petitioner also listed other art cited in the Second '263 Petition, such as WO 2013/172812 A1 (“Pehlert”) (Ex. 1134). Ex. 2007; Pet. at viii, 60.

Dr. Giacomini’s March 4, 2022, declaration, which Petitioner submitted in support

² Petitioner relies on U.S. Patent Application Publication No.

US 2004/0224283 (Benjamin J. Sun et al.) (Ex. 1124) in the '630 Petition (IPR2022-01214, Paper 2 at vii, 6) and the Second '263 Petition (IPR2023-00243, Paper 3 (“Pet.”) at vii, 5). The 2009 Sun publication relied on in the district court cites and discusses the 2004 Sun publication. Ex. 2009 at [0013].

of its opposition to the preliminary injunction motion, cites a book relied on in Ground 3 of this Second '263 Petition. Specifically, Dr. Giacomini cited the *Handbook of Thermoplastics*, edited by Olagoke Olabisi (2d ed. 2016), Chapter 10 entitled “Polycarbonates.” Ex. 2006, ¶ 126; Ex. 1125 at 10. In Ground 3, Petitioner relies on the *Handbook of Thermoplastics*. Pet. at vii, 5; Ex. 1125 (Chapter 9 of the *Handbook of Thermoplastics*).³

Shortly before serving initial invalidity contentions, in August 2022, Petitioner amended its identification of prior art to list two additional references that are cited in the grounds of the Second '263 Petition:

- Scheu-Dental GmbH's Imprelon® S material (Ex. 1123)
- US 9,655,691 B2 (“Li”)⁴ (Ex. 1127)

Ex. 2008 at 2. These two references are also cited in other patents and references that Petitioner had earlier identified—Li is discussed in the '630 and '263 patent

³ Dr. Giacomini's March 4, 2022, declaration also cites the *Handbook of Thermoplastic Elastomers*, edited by Jiri George Drobny (2d ed. 2014) (Ex. 1133). Ex. 2006, ¶¶ 121 & n.13, 125. Petitioner includes Drobny as Exhibit 1133 to the Second '263 Petition, and Dr. Giacomini again relies on it. Ex. 1002, ¶¶ 22, 178.

⁴ Li was of record during prosecution of the '263 patent. *See* Ex. 1101 at 2 ((56) “References Cited”).

specifications and Scheu-Dental GmbH's Imprelon® S material is discussed in the Hinz reference. Ex. 1112 at 2 ((56) "References Cited"), 19:66-20:9; Ex. 1101 at 2 ((56) "References Cited"), 22:34-44; Ex. 1117 at 31.

For efficiency, the parties ultimately agreed to stay the district court proceedings pending resolution of the IPRs. Ex. 1105.

B. Parallel *Inter Partes* Review Proceedings

In July 2022, nearly eight months after Patent Owner filed and served its district court complaint on November 15, 2021, Petitioner filed IPR petitions challenging the '630 and '263 patents. On July 11, 2022, Petitioner filed IPR2022-01214 ("the '630 Petition"), challenging the '630 patent on three grounds that rely on largely the same art as Grounds 1-3 in the Second '263 Petition:

- Obviousness of claims 1-4, 7-11, and 13 based on Hinz and the Durasoft (TPU/PC) Data Sheet;
- Obviousness of claims 1-4, 7-11, and 13 based on Hinz, the Durasoft (TPU/PC) Data Sheet, and the Durasoft (TPU/PETG) Data Sheet; and
- Obviousness of claims 1-4, 7-11, and 13 based on Ground 1 and/or Ground 2 further in view of Sun (U.S. Patent Application Publication No. US 2004/0224283).

See IPR2022-01214, Paper 2 at 6. The '630 Petition also cited other references not included in the grounds, including Li.

On July 19, 2022, Petitioner filed IPR2022-01215 (the "First '263 Petition"). *See* IPR2022-01215, Paper 2. The First '263 Petition argues that the '263 patent

should not be afforded its earliest priority based on a purported lack of written description for two claim limitations, and thus that the challenged claims were anticipated by art post-dating the earliest priority date (Yu or Stewart '864). *Id.* at 20-41, 43-66.

Both petitions state Petitioner's intent to file multiple petitions challenging the '263 patent claims. The '630 Petition states that "Petitioner also intends to file IPR *petitions* against the asserted claims of the '263 patent." IPR2022-01214, Paper 2 at 4 (emphasis added). The First '263 Petition similarly states that "Petitioner . . . will be filing an IPR against the presently Challenged Claims of the '263 patent based on prior art that renders the claims invalid without regard to the priority of such claims to any ancestor application." IPR2022-01215, Paper 2 at 3. Thus, as of July 2022, Petitioner was planning to file an additional petition challenging the '263 patent.

In both IPR2022-01215 and IPR2022-01214, Patent Owner filed a Patent Owner's Preliminary Response pointing out the shortcomings in the petitions and in Dr. Giacomini's declarations. *See, e.g.*, IPR2022-01214, Paper 6 (Oct. 19, 2022, POPR); IPR2022-01215, Paper 6 (Oct. 24, 2022, POPR). Although the Board agreed with Patent Owner on many points in both proceedings, on January 18, 2023, the Board instituted review of the challenged claims. IPR2022-01214, Paper 16 at 21-22 (Decision Granting Institution); IPR2022-01215, Paper 16 at 13

(Decision Granting Institution). In both proceedings, Patent's Owner's Response is due April 12, 2023, and oral argument is set for October 20, 2023. IPR2022-01214, Paper 17 at 11 (Scheduling Order); IPR2022-01215, Paper 17 at 11 (Scheduling Order).

On December 5, 2022, Petitioner finally filed this Second '263 Petition. The filing comes nearly five months after Petitioner filed the '630 Petition and the First '263 Petition, as well as more than one year after Patent Owner filed and served its district court complaint and nearly eight months after Petitioner identified nearly all the references cited in the Second '263 Petition. Indeed, this Patent Owner's *Preliminary* Response is due just one day before the Patent Owner's Response deadline for the First '263 Petition.

III. The Board Should Deny the Second '263 Petition Under 35 U.S.C. § 314(a) in View of the Parallel Proceedings

The Board should exercise its discretion under 35 U.S.C. § 314(a) to deny the Second '263 Petition based on the parallel IPR proceedings. The Board considers seven factors when deciding whether to exercise its discretion to deny a follow-on petition, every one of which favors denial here:

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

Gen. Plastic Indus. Co. v. Canon Kabushiki Kaisha, IPR2016-01357, -01358, -01359, -01360, -01361, Paper 19 at 8-10, 16 (PTAB Sept. 6, 2017) (footnotes omitted); *NVIDIA Corp. v. Samsung Elecs. Co.*, IPR2016-00134, Paper 9 at 6-7 (PTAB May 4, 2016).

This Second '263 Petition, filed nearly five months after the first, is exactly the type of petition the Board exercises its discretion to deny. *Gen. Plastic*, IPR2016-01357, Paper 19 at 17 ("Multiple, staggered petitions challenging the same patent and same claims raise the potential for abuse."). For the reasons explained below, the Second '263 Petition should be denied.

A. Factor 1: Petitioner Previously Filed the First '263 Petition Challenging the Exact Same Claims at Issue Here

The first *General Plastic* factor weighs in favor of discretionary denial because “the same claims of the same patent [are] at issue in the follow-on petition[] as in the first-filed petition[.]” *Id.* at 10; *see also Valve Corp. v. Elec. Scripting Prods., Inc.*, IPR2019-00064, -00065, -00085, Paper 10 at 9-11 (PTAB May 1, 2019) (finding that “the first *General Plastic* factor weighs against institution” where a subsequent petition or petitions “challenge the same claims . . . as the previous petition”).

In the First '263 Petition, Petitioner challenges claims 1-4, 7, 11-14, 16, 18, and 31. IPR2022-01215, Paper 2 at 1. Nearly five months later, Petitioner filed the Second '263 Petition challenging the same exact claims. Pet. 1; *see also* IPR2023-00243, Paper 1 at 1 (Petitioner’s Notice Regarding Multiple Petition[s] identifying the same claims). *General Plastic* factor one thus weighs in favor of denial. *Gen. Plastic*, IPR2016-01357, Paper 19 at 10; *see also Valve*, IPR2019-00064, Paper 10 at 11 (“The complete overlap in the challenged claims . . . favor[s] denying institution.”).

B. Factor 2: Petitioner Knew of All the Prior Art in the Second '263 Petition When It Filed the First '263 Petition (If Not Long Before)

The second *General Plastic* factor weighs in favor of discretionary denial because Petitioner knew or should have known of all the prior art asserted in the Second '263 Petition at the time it filed the First '263 Petition, if not long before. *Gen. Plastic*, IPR2016-01357, Paper 19 at 9. Indeed, Petitioner had already cited most of the references relied on in the Second '263 Petition for purposes of invalidity arguments before it filed the First '263 Petition.

Factor two involves “considering whether the prior art relied on in the later petition ‘could have been found with reasonable diligence.’” *Valve*, IPR2019-00064, Paper 10 at 11 (citation omitted). It is Petitioner’s burden to “set forth facts or offer an explanation concerning its knowledge, at the time it filed the first petition, of the prior art asserted in the [first petition] and here.” *Apple Inc. v. Uniloc 2017 LLC*, IPR2020-00854, Paper 9 at 9 (PTAB Oct. 28, 2020). A petitioner’s “lack of explanation . . . weighs in favor of denying institution.” *Id.*

Here, Petitioner offers no explanation of its knowledge of the cited art when it filed the First '263 Petition. Nor does Petitioner explain its decision to wait nearly five months to file the Second '263 Petition based on that art. Petitioner argues only that the Second '263 Petition is purportedly justified because the First '263 Petition challenged priority and relied on different art. IPR2023-00243, Paper

1 at 1-2; Pet. 6-7. But, regardless of Petitioner’s reasoning for filing two separate petitions challenging the same ’263 patent claims, Petitioner fails to address its knowledge of all the art when it filed the First ’263 Petition or its five-month delay. *General Plastic* factor two thus weighs in favor of denial. *See, e.g., Uniloc*, IPR2020-00854, Paper 9 at 9.

Petitioner knew or should have known about eight of the ten cited references no later than March 4, 2022, when Petitioner filed its brief opposing Patent Owner’s motion for preliminary injunction that included validity arguments. Petitioner relied on Hinz and the *Handbook of Thermoplastics*,⁵ and Hinz in turn expressly discusses Scheu-Dental GmbH’s Durasoft® and Imprelon® materials. Ex. 1110 at 17-18; Ex. 2006, ¶¶ 111-128; Ex. 1117 at 6, 7. Petitioner also relied on US 2009/0130624 A1 (2009 Sun), which cites US 2004/0224283 (Sun) relied on in the Second ’263 Petition. Ex. 2006, ¶¶ 129-132; Ex. 2009 at [0013]; Pet. 43-51. And Petitioner should have been aware of the Li and Boronkay references no later

⁵ In the district court, Petitioner relied on portions of the *Handbook of Thermoplastics*, which it referred to as “Olabisi, *Handbook of Thermoplastics*, (2016).” Ex. 2006, ¶ 126. In the Second ’263 Petition, Petitioner relies on Chapter 9 of the same *Handbook of Thermoplastics*, which it names as “Kannan.” Pet. at vii, 23, 51-52; Ex. 1125.

than November 15, 2021, the date Patent Owner filed and served its district court complaint, because those references are cited on the face of the '263 patent. Ex. 1101 at 2 ((56) "References Cited").

Petitioner also knew or should have known about *all* the cited references no later than April 15, 2022, when Petitioner served an identification of alleged prior art in the district court. Ex. 2007. That document identified Hinz, Scheu-Dental GmbH's Durasoft® material, Boronkay, Chen, and Stewart. *Id.* Further, Petitioner should have known of the other art because it was either cited on the face of the '263 patent (Li) or was cited and discussed in art Petitioner had already cited (Imprelon® discussed in Hinz and US 2004/0224283 (Sun) discussed in US 2009/0130624 A1 (2009 Sun)). Ex. 1101 at 2 ((56) "References Cited"); Ex. 1117 at 6; Ex. 2009 at [0013]. And Petitioner cited Li and US 2004/0224283 (Sun) in the '630 Petition on July 11, 2022, the week before filing the First '263 Petition. IPR2022-01214, Paper 2 at vii, viii, 6, 25, 54.

Petitioner's knowledge of the references relied on in the Second '263 Petition is summarized in the table below:

Reference Name	Earliest Citation by Petitioner	Latest Petitioner Should Have Known of Reference
Hinz	March 4, 2022 (cited in preliminary injunction opposition brief)	
Kannan/ <i>Handbook</i>	March 4, 2022 (cited in preliminary injunction opposition brief)	
Durasoft (TPU/PC) Data Sheet	April 15, 2022 (cited in notice of prior art)	March 4, 2022 (cited in Hinz)
Durasoft (TPU/PETG) Data Sheet	April 15, 2022 (cited in notice of prior art)	March 4, 2022 (cited in Hinz)
Boronkay	April 15, 2022 (cited in notice of prior art)	November 15, 2021 (cited in '263 patent)
Chen	April 15, 2022 (cited in notice of prior art)	
Stewart	April 15, 2022 (cited in notice of prior art)	
Sun (U.S. Patent App. Pub. No. US 2004/0224283)	July 11, 2022 (cited in '630 Petition)	March 4, 2022 (cited in 2009 Sun)
Li	July 11, 2022 (cited in '630 Petition)	November 15, 2021 (cited in '263 patent)

Reference Name	Earliest Citation by Petitioner	Latest Petitioner Should Have Known of Reference
Scheu-Dental GmbH's Imprelon S (Copolyester) Data Sheet	August 4, 2022 (cited in amended notice of prior art)	March 4, 2022 (cited in Hinz)

Because Petitioner had cited nine out of ten references before filing the First '263 Petition and should have been aware of the remaining reference (Imprelon® S) long before filing the First '263 Petition, *General Plastic* factor two weighs in favor of denial. *See, e.g., Valve*, IPR2019-00064, Paper 10 at 12 (“Valve’s knowledge of the Welch-HiBall reference and its ability to quickly locate the Maeda and Anderson references favor denying institution.”). This factor weighs even more strongly in favor of denial in view of Petitioner’s failure to offer any explanation concerning its knowledge of the art cited in the Second '263 Petition when it filed the First '263 Petition. *Uniloc*, IPR2020-00854, Paper 9 at 9.

C. Factor 3: Petitioner Received Patent Owner’s Preliminary Responses to the First '263 Petition and the '630 Petition Before Filing the Second '263 Petition

The third *General Plastic* factor weighs in favor of discretionary denial because Petitioner “had access to a Board decision or a preliminary response concerning its first petition, such that [Petitioner] would have been in a position to

gain a benefit from having that information before filing its second petition.” *Id.* at 10.

General Plastic states that “factor 3 is directed to Petitioner’s potential benefit from receiving and having the opportunity to study Patent Owner’s Preliminary Response, as well as our institution decisions on the first-filed petitions, prior to its filing of follow-on petitions.” *Gen. Plastic*, IPR2016-01357, Paper 19 at 17. This factor reflects the Board’s determination that a petitioner should not be permitted to use an institution decision or preliminary response in a prior proceeding as a guide to tailor the arguments in a subsequent petition. *See, e.g., Valve*, IPR2019-00064, Paper 10 at 13 (citing *Gen. Plastic*, IPR2016-01357, Paper 19 at 17-18).

Here, Petitioner did not file the Second ’263 Petition until December 5, 2022, more than a month after Patent Owner served its Preliminary Responses to the ’630 Petition and the First ’263 Petition. Petitioner thus had the opportunity to use the Patent Owner’s Preliminary Responses to guide arguments and selection of art for the Second ’263 Petition. For example, by waiting until after Patent Owner’s Preliminary Response to the ’630 Petition, Petitioner was able to consider Patent Owner’s arguments regarding the Hinz, Sun, and Durasoft® references, which Petitioner cites in Grounds 1-3 of the Second ’263 Petition.

Similarly, by waiting until after Patent Owner's Preliminary Response to the First '263 Petition, Petitioner was able to consider Patent Owner's characterization of the '263 patent claims and written description. Even though the First '263 Petition challenges priority and relies on different art, Patent Owner's Preliminary Response nonetheless gave Petitioner the opportunity to tailor its arguments in the Second '263 Petition based on Patent Owner's statements about claim scope, claim construction, and the intrinsic record.

Petitioner's ability to use these substantive papers to tailor its arguments is even more notable here because even the '630 Petition and First '263 Petition were already Petitioner's second time raising validity challenges to those patents. Petitioner's March 4, 2022, district court brief opposing a preliminary injunction had already raised validity arguments, to which Patent Owner responded on April 1, 2022. Ex. 1110; Ex. 1111. These papers included arguments regarding the same Hinz reference that appears in Grounds 1-3 of the Second '263 Petition, which in turn discusses Scheu-Dental GmbH's Durasoft® and Imprelon® S materials. Ex. 1110 at 17-18; Ex. 1117 at 31-32; Ex. 2006, ¶¶ 111-132; Ex. 1111 at 4-5. Petitioner therefore has had multiple opportunities to tailor its arguments for the Second '263 Petition based on Patent Owner's past responses to validity challenges asserting many of the cited references.

Importantly, Petitioner did in fact modify its arguments after seeing Patent Owner's Preliminary Responses, and thus the Second '263 Petition implicates the fairness concerns expressed in *General Plastic*. For example, Patent Owner's Preliminary Response to the '630 Petition detailed Hinz and Durasoft's failure to disclose any flexural modulus for a multilayer polymer sheet or dental appliance and disputed Petitioner's improper reliance on inherency to try to fill that gap. IPR2022-01214, Paper 6 at 1-4, 12-39. Here, Petitioner opted not to rely solely on Hinz and Durasoft for any claims that recite an overall flexural modulus of the multilayer sheet or dental appliance. *Compare* Pet. 45-50, *with* IPR2022-01214, Paper 2 at 33-38, 56-60, 67-68. The Second '263 Petition also includes additional discussion of certain portions of Hinz compared to the '630 Petition. *Compare, e.g.,* Pet. 38-39, *with* IPR2022-01214, Paper 2 at 26-28.⁶

The Second '263 Petition also modifies Petitioner's discussion of the Sun reference. In the '630 Petition, the discussion of Sun and Ground 3 was all but an afterthought, taking up just three pages of the '630 Petition's seventy-plus pages.

⁶ Dr. Giacomini's declaration, which is his fourth involving these patents, largely parrots the Second '263 Petition itself and contains the same slightly modified arguments. *E.g., compare* Pet. 38-39; Ex. 1102, ¶¶ 128-130, *with* IPR2022-01214, Paper 2 at 26-28; IPR2022-01214, Ex. 1002, ¶¶ 86-88.

IPR2022-01214, Paper 2 at 65-68. But after Patent Owner identified the shortcomings of the Hinz/Durasoft® combination in its Preliminary Response to the '630 Petition, Petitioner modified its arguments regarding Sun in the Second '263 Petition, including by adding an (incorrect) *prima facie* obviousness argument based on overlapping ranges and *In re Peterson*, 315 F.3d 1325 (Fed. Cir. 2003), that Petitioner raised for the first time in its *Reply* to Patent Owner's Preliminary Response to the '630 Petition. *Compare* IPR2022-01214, Paper 2 at 67-68, with Pet. 45-50; *see also* IPR2022-01214, Paper 11 at 1-2.

Petitioner's access to Patent Owner's Preliminary Responses to the '630 Petition and First '263 Petition gave Petitioner the opportunity to tailor its arguments in the Second '263 Petition. The Board has recognized "the potential for abuse" in situations like this one and has exercised its discretion to deny institution. *Gen. Plastic*, IPR2016-01357, Paper 19 at 16-17. Here, Petitioner could have filed the Second '263 Petition at the same time as (or soon after) the First '263 Petition and the '630 Petition. Instead, Petitioner waited nearly five months and filed the Second '263 Petition only after receiving Patent Owner's Preliminary Responses, and the Second '263 Petition evidences numerous changes from the earlier two petitions. *General Plastic* factor three thus weighs in favor of denying institution. *See, e.g., Uniloc*, IPR2020-00854, Paper 9 at 10.

D. Factors 4 and 5: Petitioner Fails to Explain Its Lengthy Delay in Filing the Second '263 Petition After Learning of the Asserted Art and Filing the First '263 Petition

The fourth and fifth *General Plastic* factors weigh in favor of discretionary denial here because Petitioner fails to explain its months-long delay in filing the Second '263 Petition after learning of the asserted art by March-April 2022 and filing the First '263 Petition and the '630 Petition in July 2022. *Gen. Plastic*, IPR2016-01357, Paper 19 at 9, 10-11; *Uniloc*, IPR2020-00854, Paper 9 at 11; *Valve*, IPR2019-00064, Paper 10 at 14-15.

The Board has repeatedly held that factor four favors denial where a petitioner delays in filing the petition after it learned of the asserted art or should have known about that art. In *Valve*, for example, the Board reasoned that Valve “could have found the prior art asserted in its Petition through the exercise of reasonable diligence at or around the time of HTC’s petition.” *Valve*, IPR2019-00064, Paper 10 at 15. The Board concluded that the “fact that Valve waited five months after HTC’s petition to file the Petition in this case favors denying institution.” *Id.*

As explained above, Petitioner opted to wait *at least* around eight months after it knew or should have known of all the asserted art before filing the Second '263 Petition on December 5, 2022. Indeed, Petitioner either knew or should have known of much of the asserted art even earlier. Factor four thus presents a stronger

case for denial than in *Uniloc*, where the Board could not determine how much time elapsed between Apple's knowledge of the asserted art and the filing of its second petition based on Apple's failure to explain its knowledge of the art.

Uniloc, IPR2020-00854, Paper 9 at 10-11.

Moreover, as early as March 4, 2022, Petitioner had already made invalidity arguments based on several of the asserted references in the district court preliminary injunction proceedings. Petitioner again made invalidity arguments based on several of the asserted references (e.g., Hinz, Durasoft®, and Sun) in the '630 Petition on July 11, 2022. Further, the Second '263 Petition relies on the same technical expert, Dr. Giacomini, who has provided declarations addressing the '263 patent in the district court and earlier IPR proceedings.

Thus, unlike the situation in *Valve*, where a different party filed the first petition challenging the claims, here Petitioner filed the First '263 Petition and the '630 Petition, relies on the same expert used previously, and has already extensively addressed the challenged patents and much of the art both in the district court and before the Board. These facts therefore present an even stronger case for discretionary denial under the fourth *General Plastic* factor than in *Valve* or *Uniloc*.

Against this backdrop, *General Plastic* factor five strongly favors discretionary denial. The Board has held that a petitioner's failure to explain the

time elapsed between the filings of multiple petitions challenging the same claims of the same patent weighs in favor of denial. *See, e.g., Uniloc*, IPR2020-00854, Paper 9 at 11; *Valve*, IPR2019-00064, Paper 10 at 14-15.

Here, Petitioner fails to explain its decision to wait nearly five months to file the Second '263 Petition after filing the First '263 Petition. Indeed, while Petitioner addresses the *Fintiv* factors in arguing against a discretionary denial based on parallel district court proceedings, it says nothing about the *General Plastic* factors. Pet. 6-7; *see also* IPR2023-00243, Paper 1 (failing to explain reason for its delay).

Petitioner's failure to explain its lengthy delay is particularly notable given that the First '263 Petition filed July 19, 2022, expressly states that Petitioner intended to file a second petition challenging the '263 patent claims. IPR2022-01215, Paper 2 at 3. Petitioner provided no explanation of its decision to wait until December 2022 to file a petition it was already planning to file at least as early as July 2022.

Nor do any differences between the First and Second '263 Petitions justify or explain Petitioner's delay. Petitioner contends that separate petitions were needed because the First '263 Petition challenged priority and asserts different art that would be unavailable if the priority challenge failed. Pet. 6; IPR2023-00243, Paper 1 at 1-2. Regardless of whether filing two petitions challenging the '263

patent was warranted, however, Petitioner fails to explain its delay in waiting nearly five months to file the second petition. Nor does the difference in the asserted art in the First and Second '263 Petitions explain the delay, given that Petitioner was aware of the art asserted in the Second '263 Petition long before filing the First '263 Petition.

Given Petitioner's failure to explain its nearly five-month delay, factor five weighs in favor of discretionary denial.⁷ *See Valve*, IPR2019-00064, Paper 10 at 14-15 (finding that *General Plastic* factor five weighs in favor of discretionary denial based in part on "the five-month delay between the filing of HTC's petition and Valve's Petition").

⁷ Patent Owner respectfully requests that the Board deny any request by Petitioner to reply to this Preliminary Response. The Board's precedents have long established that a petitioner must explain both its knowledge of art asserted in a second petition challenging the same patent claims and any delay in filing such a petition. Petitioner had an opportunity to address these matters in the Second '263 Petition and should not be able to use a reply to make up for its deficiencies.

E. Factors 6 and 7: The Finite Resources of the Board and the Requirement that the Board Issue a Ruling Within One Year of Institution Weigh in Favor of Discretionary Denial

The sixth and seventh *General Plastic* factors weigh in favor of discretionary denial because granting institution of the Second '263 Petition would be an inefficient use of the Board's resources.

Both factors six and seven consider efficiencies. The Board has explained that, in general, having multiple petitions challenging the same patent "is inefficient and tends to waste resources." *Id.* at 16. The Board noted that this is true "especially when [the petitions are] not filed at or around the same time." *Id.* Having multiple, staggered petitions challenging the same patent claims is "unfair to patent owners and is an inefficient use of the *inter partes* review process." *Gen. Plastic*, IPR2016-01357, Paper 19 at 17-18.

Here, Petitioner filed the Second '263 Petition nearly five months after the First '263 Petition and the '630 Petition—the same length of delay as in *Valve*. Factors six and seven thus favor discretionary denial of the Second '263 Petition.

Instituting this proceeding would be especially inefficient given that Petitioner will be estopped from maintaining its invalidity arguments once the Board issues its final written decision in IPR2022-01215, which the Board instituted to consider Petitioner's priority challenge to the '263 patent. Once that final written decision issues, no later than January 19, 2024, Petitioner will be

estopped under 35 U.S.C. § 315(e)(1) from maintaining this proceeding because it challenges the same claims on grounds that Petitioner raised or reasonably could have raised in the First '263 Petition. This additionally supports discretionary denial under *General Plastic* factors six and seven.

F. All the *General Plastic* Factors Weigh in Favor of the Board Exercising Its Discretion to Deny the Second '263 Petition

All seven *General Plastic* factors weigh in favor of denying institution. Petitioner opted not to file the Second '263 Petition at the same time as the '630 Petition and the First '263 Petition. Instead, Petitioner waited more than a month after receiving Patent Owner's Preliminary Responses to those earlier petitions before filing the Second '263 Petition. Petitioner fails to explain this delay or the fact that it knew or should have known of all the art asserted in the Second '263 Petition long before it filed the First '263 Petition. On these facts, instituting the Second '263 Petition would be an inefficient use of Board resources and unfair to Patent Owner. Accordingly, Patent Owner respectfully asks the Board to exercise its discretion to deny the Second '263 Petition under 35 U.S.C. § 314(a).

IV. The Board Should Deny Institution Under 35 U.S.C. § 315(b)

An *inter partes* review “may not be instituted” if the petition is filed more than one year after the date on which the petitioner is served with a complaint alleging infringement of the patent. 35 U.S.C. § 315(b). The Federal Circuit has

held that the time bar under § 315(b) “is implicated once a party receives notice through official delivery of a complaint in a civil action, irrespective of subsequent events.” *Click-to-Call Techs., LP v. Ingenio, Inc.*, 899 F.3d 1321, 1330 (Fed. Cir. 2018), *vacated*, 810 F. App’x 881 (Fed. Cir. 2020). A manner of service “prescribed by [law]” includes “delivering a copy of the summons and of the complaint to an officer, a managing or general agent, or any other agent authorized by appointment or by law to receive service of process.” Fed. R. Civ. P. 4(h)(1)(B).

The petitioner—not the patent owner—bears the burden of persuasion to show that a petition is not time barred under § 315(b). *Microsoft Corp. v. Worlds Inc.*, IPR2021-00277, 2021 WL 2460652, at *4 (PTAB June 16, 2021).

As explained above, Patent Owner filed a complaint against Petitioner on November 15, 2021, in the U.S. District Court for the District of Delaware asserting infringement of the ’263 and ’630 patents. Ex. 1103. That same day, Petitioner served the complaint and summons on CT Corporation, who was and remains listed on the Delaware Secretary of State’s website as a registered agent for Petitioner (3M Company).⁸ Ex. 2002; Ex. 2003. The Affidavit of Service indicates that an employee of CT Corporation, Amy McLaren, was “Authorized to

⁸ The Delaware Secretary of State’s website also lists a second entity as Petitioner’s registered agent.

Accept” and did accept service. Ex. 2002. CT Corporation has previously accepted service on Petitioner’s behalf in actions in the District of Delaware. *See, e.g.*, Ex. 2010, ¶ 2 (stating that “3M may be served with process through the Corporation Trust Company”); Ex. 2011, ¶ 2 (admitting that “3M may be served with process through the Corporation Trust Company”).

On December 3, 2021, Petitioner’s in-house counsel emailed Patent Owner’s Delaware counsel about Patent Owner’s complaint, stating that CT Corporation was purportedly not authorized to accept service on Petitioner’s behalf and forwarding a letter CT Corporation had allegedly sent to Patent Owner’s counsel. Ex. 2004. Petitioner also offered to waive service of the complaint. *Id.* Both Petitioner’s email and the attached letter from CT Corporation cited the district court case by name and docket number. *Id.*; Ex. 1106. In the letter, CT Corporation stated that it “is not the registered agent for an entity by the name of 3M Company” and that “CT was unable to forward.” Ex. 1106.

The fact that Petitioner forwarded the letter to Patent Owner’s counsel establishes that CT Corporation did in fact notify Petitioner of the complaint. Indeed, Petitioner could not have forwarded the letter without having been notified by CT Corporation that it had been served. Petitioner thus was notified of the complaint by a company listed on the Delaware Secretary of State’s website as Petitioner’s registered agent. And, while the December 3, 2021, email from

Petitioner's in-house counsel asserts that CT Corporation is not Petitioner's registered agent, the email does not state that CT Corporation failed to provide a copy of the complaint and accompanying documents. Ex. 2004. Those documents were also available on the District of Delaware's public docket under the docket number listed in CT Corporation's letter and Petitioner's email.

Petitioner failed to meet its burden of showing that the Second '263 Petition is not time barred under § 315(b). Petitioner addresses this issue only in a one-sentence footnote, asserting without support that "Patent Owner did not properly serve Petitioner with the district court complaint until December 6, 2021." Pet. 5 n.2. Petitioner cites the letter from CT Corporation but fails to reconcile CT Corporation's statement that it was "unable to forward" with the fact that CT Corporation notified Petitioner of the complaint by (at a minimum) providing the letter with the case name and docket number. Ex. 1106. Petitioner has not cited any evidence contradicting the fact that it was notified of the complaint by CT Corporation or establishing that CT Corporation did not provide a copy of the complaint. Nor has Petitioner explained its decision to wait until more than one year after it contacted Patent Owner regarding the district court complaint.

Petitioner's conclusory, one-sentence footnote is insufficient to meet its burden of providing evidence sufficient to establish that it is not time barred under

§ 315(b). Pet. 5 n.2. Accordingly, institution should be denied. *Microsoft*, 2021 WL 2460652, at *4.

Moreover, Patent Owner's November 15, 2021, service on CT Corporation, a company listed as Petitioner's registered agent, gives rise to a time bar because it gave Petitioner "notice of the pendency of a legal action." *Click-to-Call*, 899 F.3d at 1332. As the Federal Circuit has noted, "the core function of service is to supply notice of the pendency of a legal action." *Id.* (quoting *Henderson v. United States*, 517 U.S. 654, 672 (1996)). Here, Patent Owner's service on CT Corporation thus satisfied the requirements of § 315(b) and triggered the time bar. *Id.* at 1330.

Consistent with these precedents, the Board has previously held that the § 315(b) time bar applies even where the party who filed a claim for infringement in the district court lacked standing to do so. In *GoPro, Inc. v. 360Heroes, Inc.*, for example, the Board denied institution under § 315(b) even though the party asserting infringement lacked standing because it was not the assignee of the patent-in-suit and the suit was dismissed. IPR2018-01754, 2019 WL 3992792, at *10 & n.6 (PTAB Aug. 23, 2019). Thus, even where the petitioner was sued by the wrong party, who thus lacked Article III standing to assert an infringement claim, the § 315(b) bar nonetheless applied because petitioner received notice of the infringement claim. *Id.* at *4, *10 & n.6.

Here, despite Petitioner’s assertion that CT Corporation was “not 3M’s authorized agent to accept service in Delaware” (Ex. 2004), the evidence establishes that after CT Corporation was served with Patent Owner’s complaint, it notified Petitioner of the complaint more than one year before Petitioner filed the Second ’263 Petition.

V. Conclusion

For the foregoing reasons, Patent Owner respectfully asks the Board to deny institution.

Respectfully submitted,

Date: April 11, 2023

By: /Charles T. Collins-Chase/
Charles T. Collins-Chase
Reg. No. 78,019

Counsel for Patent Owner

CERTIFICATE OF COMPLIANCE

Pursuant to 37 C.F.R. § 42.24(d), the undersigned certifies that this Patent Owner's Preliminary Response complies with the type-volume limits of 37 C.F.R. § 42.24(b)(1), because it contains 6,692 words, according to the word-processing system used to prepare this Preliminary Response, excluding the words in the Table of Contents, Table of Authorities, List of Exhibits, Certification Under § 42.24(d), and Certificate of Service, as set forth in 37 C.F.R. § 42.24(a)(1).

Dated: April 11, 2023

Respectfully submitted,

By: /Charles T. Collins-Chase/
Charles T. Collins-Chase
Reg. No. 78,019

Counsel for Patent Owner

CERTIFICATE OF SERVICE

The undersigned certifies that a copy of the foregoing **Patent Owner's Preliminary Response and Exhibits 2001 – 2011** were served electronically via email on April 11, 2023, in their entirety on the following:

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