

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

RECYCLED PLASTICS INDUSTRIES, LLC
Petitioner

v.

TANGENT TECHNOLOGIES LLC
Patent Owner

Inter Partes Review No.: 2024-00898
U.S. Patent No. 10,981,350

PETITIONER’S REPLY TO PRELIMINARY RESPONSE¹

¹ Filed pursuant to the Board’s authorization provided on September 9, 2024.

Table of Contents

	PAGE
I. INTRODUCTION	1
II. DISCRETIONARY DENIAL IS INAPPROPRIATE UNDER 35 U.S.C. § 325(D).....	2
A. Nam Was Not Previously Considered and Expressly Discloses Elements Deemed Missing from Previously Considered Prior Art.....	2
B. StaMixCo Provides Additional Non-Cumulative Disclosures Deemed Missing from Previously Considered Prior Art.....	6
C. Zumbrunnen Was Not Previously Considered and Expressly Discloses Elements Deemed Missing from Previous Prior Art.....	10
D. Rassi Is Non-Cumulative Secondary Prior Art and Is Only Used to Disclose Limitations That Were Not Material to Patentability.....	12
III. CONSTRUING “SUBSTANTIALY UNINTERRUPTED” IS UNNECESSARY FOR INSTITUTION	14
IV. CONCLUSION.....	15

Table of Authorities

Page(s)

Cases

<i>Advanced Bionics, LLC v. MED-EL Elektromedizinische Geräte GmbH,</i> IPR2019-01469, Paper 6 (PTAB Feb. 13, 2020)	13
<i>BioDelivery Scis. Int’l, Inc. v. MonoSol Rx, LLC,</i> IPR2014-00794, Paper 7 (PTAB Nov. 5, 2014)	15
<i>Cellco P’ship v. Huawei Device Co., Ltd.,</i> IPR2020-01117, Paper 10, 2021 WL 389532 (PTAB Feb. 3, 2021).....	8, 13
<i>Chanel, Inc. v. Molo Design, Ltd.,</i> IPR2022-00544, Paper 44, 2023 WL 5153646 (PTAB Aug. 9, 2023).....	14
<i>Microsoft Corp. v. Uniloc 2017 LLC,</i> IPR2019-01251, Paper 7, 2019 WL 7000081 (PTAB Dec. 20, 2019)	2, 10
<i>NHK Spring Co., Ltd. v. Intri-Plex Techs., Inc.</i>	4
IPR2018-00752, Paper 8 (PTAB Sept. 12, 2018)	
<i>Orthopediatrics Corp. v. K2M, Inc.,</i> IPR2018-01548, Paper 9 (PTAB Mar. 1, 2019).....	15
<i>Panasonic Corp. v. Optical Devices, LLC,</i> IPR2014-00302, Paper 9 (PTAB July 11, 2014).....	15
<i>PGS Geophysical AS v. Iancu,</i> 891 F.3d 1354 (Fed. Cir. 2018)	5
<i>PLR Worldwide Sales Ltd. v. Flip Phone Games, Inc.,</i> IPR2024-00132, Paper 9, 2024 WL 1892705 (PTAB Apr. 30, 2024).....	9
<i>PLR Worldwide Sales Ltd. v. Flip Phone Games, Inc.,</i> IPR2024-00209, Paper 9, 2024 WL 2106683 (PTAB May 10, 2024).....	passim

Simpson Strong-Tie Co. Inc. v. Columbia Insurance Co.,
PGR2023-00049, Paper 7, 2024 WL 1244879 (PTAB Mar. 22, 2024)..... 2, 10,13

Volkswagen Grp. of Am., Inc. v. Mich. Motor Techs. LLC,
IPR2020-00229, Paper 13 (PTAB July 6, 2020).....15

Statutes

35 U.S.C. § 325(d) 1, 2, 8, 13, 15

Other Authorities

37 C.F.R. § 42.23(b) 9

List of Exhibits

Exhibit No.	Description
RPI1001	U.S. Patent No. 10,981,350 (marked as Exhibit 4 during deposition of Francisco Morales in district court litigation)
RPI1002	USPTO Assignments on the Web for U.S. Patent No. 10,981,350
RPI1003	U.S. Provisional Patent Application No. 62/208,928 (marked as Exhibit 8 during deposition of Francisco Morales in district court litigation)
RPI1004	File History of U.S. Patent No. 10,981,350 (marked as Exhibit 7 during deposition of Francisco Morales in district court litigation)
RPI1005	Declaration of Dr. Karl Englund
RPI1006	<i>Curriculum Vitae</i> of Dr. Karl Englund
RPI1007	Deposition Transcript of Francisco Morales, <i>Tangent Techs., LLC v. Recycled Plastics Indus., LLC</i> , Case No. 1:23-cv-00261-WCG (E.D. Wis. Mar. 12, 2024)
RPI1008	Defendant Recycled Plastics Industries, LLC's Amended Notice of Rule 30(b)(6) Deposition to Plaintiff Tangent Technologies, LLC, <i>Tangent Techs., LLC v. Recycled Plastics Indus., LLC</i> , Case No. 1:23-cv-00261-WCG (E.D. Wis. Mar. 6, 2024) (marked as Exhibit 1 during deposition of Francisco Morales in district court litigation)
RPI1009	E-mail from J. Oehler to J. Zambrzycki (April 19, 2024) regarding <i>Tangent Techs., LLC v. Recycled Plastics Indus., LLC</i> , Case No. 1:23-cv-00261-WCG (E.D. Wis.)
RPI1010	"SMB Extrusion Melt Blender," StaMixCo (2007) (StaMixCo) (marked as Exhibit 10 during deposition of Francisco Morales in district court litigation)
RPI1011	Korean Patent No. 10-1338611 with Certified Translation (Nam)

Exhibit No.	Description
RPI1012	Zumbrunnen, D.A., “Chaotic Advection and Its Application to Extruding Micro- and Nanostructured Plastic Materials,” <i>Applied Plastics Engineering Handbook</i> (2011), 401-415 (Zumbrunnen)
RPI1013	U.S. Patent No. 9,527,341 (Rassi)
RPI1014	Defendant Recycled Plastics Industries, LLC’s Proposed Claim Constructions, <i>Tangent Techs., LLC v. Recycled Plastics Indus., LLC</i> , Case No. 1:23-cv-00261-WCG (E.D. Wis. Apr. 26, 2024)
RPI1015	Plaintiff Tangent Technologies, LLC’s Proposed Constructions for Disputed Claim Terms, <i>Tangent Techs., LLC v. Recycled Plastics Indus., LLC</i> , Case No. 1:23-cv-00261-WCG (E.D. Wis. Apr. 26, 2024)
RPI1016	Gardner, D. J. et al., “Wood-Plastic Composite Technology,” <i>Curr Forestry Rep</i> (June 4, 2015), 1:139-150 (Gardner)
RPI1017	Holden, B., “10 Things You Need To Know About Plastic Lumber,” <i>American Woodworker</i> (May 2005), 54-60 (American Woodworker)
RPI1018	Platt, B. et al., <i>The Healthy Building Network’s Guide to Plastic Lumber</i> (2005) (Platt)
RPI1019	U.S. Patent No. 9,359,762 (Nichols)
RPI1020	Internet Archive Affidavit of Nathaniel Frank-White (May 1, 2024) with Exhibits A-B
RPI1021	Meijer, H.E.H. et al., “On the performance of static mixers: a quantitative comparison,” <i>Progress in Polymer Science</i> (Jan. 1, 2012) 37(10):1333-49 (Meijer)
RPI1022	U.S. Patent No. 3,881,984 (Soda)
RPI1023	Saatdjian, E. et al., “On chaotic advection in a static mixer,” <i>Chemical Engineering Journal</i> (2012), 289-298 (Saatdjian)
RPI1024	Reserved

Exhibit No.	Description
RPI1025	U.S. Patent Application Publication No. 2012/0007277 (Nakamura)
RPI1026	U.S. Patent No. 9,533,444 (Philpot)
RPI1027	U.S. Patent Application Publication No. 2010/0032861 (Pietruczynik)
RPI1028	International Published Patent Application WO 98/52996 (Dorchester)
RPI1029	Kim, J. K. and Pal, Kaushik, <i>Recent Advances in the Processing of Wood-Plastic Composites</i> (2010) (Kim)
RPI1030	Wolcott, M. P. and Englund, K., "A technology review of wood-plastic composites," <i>33rd International Particleboard Composite Materials Symposium</i> (January 1999), 103-111 (Wolcott)
RPI1031	Sidharta, A., "Wood Plastic Composites (WPCs) as an Alternative to Solid Lumber," University of British Columbia (2011) (Sidharta)
RPI1032	United States Patent Application Publication No. 2015/0044434 (Kotiadis)
RPI1033	ASTM Standard Specification for Polyolefin-Based Plastic Lumber Decking Boards, D6662-13 (June 2013) (ASTM D6662-13)
RPI1034	Defendant Recycled Plastics Industries, LLC's Notice of Deposition of Francisco Morales, <i>Tangent Techs., LLC v. Recycled Plastics Indus., LLC</i> , Case No. 1:23-cv-00261-WCG (E.D. Wis. Mar. 6, 2024) (marked as Exhibit 2 during deposition of Francisco Morales in district court litigation)
RPI1035	Plaintiff Tangent Technologies, LLC's Initial Disclosures, <i>Tangent Techs., LLC v. Recycled Plastics Indus., LLC</i> , Case No. 1:23-cv-00261-WCG (E.D. Wis. Nov. 30, 2023) (marked as Exhibit 3 during deposition of Francisco Morales in district court litigation)

Exhibit No.	Description
RPI1036	United States Design Patent No. D819,234 (marked as Exhibit 5 during deposition of Francisco Morales in district court litigation)
RPI1037	United States Design Patent No. D819,235 (marked as Exhibit 6 during deposition of Francisco Morales in district court litigation)
RPI1038	StaMixCo Principles of Operation Webpage Printout (Wayback Machine) (marked as Exhibit 9 during deposition of Francisco Morales in district court litigation)
RPI1039	Excerpts from File History of United States Design Patent No. D819,234 (marked as Exhibit 11 during deposition of Francisco Morales in district court litigation)
RPI1040	Excerpts from File History of United States Design Patent No. D819,235 (marked as Exhibit 12 during deposition of Francisco Morales in district court litigation)
RPI1041	Tangent Residential Materials Brochure (marked as Exhibit 13 during deposition of Francisco Morales in district court litigation)
RPI1042	Plaintiff Tangent Technologies, LLC's First Amended Complaint, <i>Tangent Techs., LLC v. Recycled Plastics Indus., LLC</i> , Case No. 1:23-cv-00261-WCG (E.D. Wis. May 18, 2023) (marked as Exhibit 14 during deposition of Francisco Morales in district court litigation)
RPI1043	Photographs of Surfaces of Three Products (marked as Exhibit 15 during deposition of Francisco Morales in district court litigation)
RPI1044	Photographs of Cross-Sections of Three Products (marked as Exhibit 16 during deposition of Francisco Morales in district court litigation)

Exhibit No.	Description
RPI1045	Zambrzycki Declaration and Biography in Support of Motion for <i>Pro Hac Vice</i>
RPI1046	Claim Construction Order, <i>Tangent Techs., LLC v. Recycled Plastics Indus., LLC</i> , Case No. 1:23-cv-00261-WCG (E.D. Wis. July 24, 2024)

I. Introduction

PO finds itself in the unenviable position of trying to prevent institution of *inter partes* review of a patent that claims a simulated natural wood board that has already been disclosed in, and whose “key” feature PO copied from, the prior art. Tellingly, in its POPR, PO makes no attempt to engage in any patent invalidity analysis. Having no defense to institution on the merits, PO spends the vast majority of its POPR arguing that institution should be denied either on § 325(d) grounds or because Petitioner argued before the district court that one of the limitations of the Challenged Claims is indefinite. Both arguments are equally devoid of merit.

The asserted Grounds here rely on prior art and prior art combinations that were never previously considered during prosecution, and on prior art and arguments that are materially different from those that were previously considered. Indeed, the asserted Grounds rely on references that explicitly disclose the claimed simulated “wood grain appearance” that was deemed to be missing in the cited art during prosecution and was the basis for allowance of the ’350 patent. Petitioner’s Grounds are further supported by the expert testimony of Dr. Englund, which was also never previously considered. There is therefore no basis to deny institution under § 325(d).

PO’s claim construction arguments also fail to provide a basis for denial. There is nothing inconsistent between Petitioner’s arguing before the district court that the term “substantially uninterrupted” is indefinite and its position here. As

explained in the Petition, indefiniteness is outside the scope of an IPR, and the term “substantially uninterrupted” does not need to be construed here in view of Petitioner's asserted prior art. Nor does PO propose a governing claim construction, or explain what difference it would make. Indeed, even the district court found that no construction is necessary. PO has demonstrated no reason for denying institution.

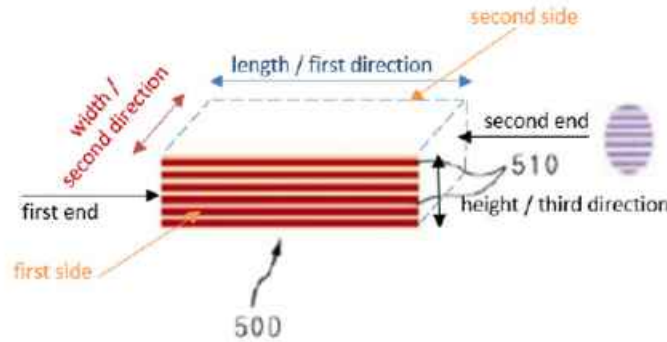
II. Discretionary Denial Is Inappropriate Under 35 U.S.C. § 325(d)

A. Nam Was Not Previously Considered and Expressly Discloses Elements Deemed Missing from Previously Considered Prior Art

PO does not dispute that Nam was not considered during prosecution. Pet. at 83. Instead, PO argues that Petitioner's Grounds 1-2 relying on Nam are cumulative of arguments and art considered by the Patent Office during the '350 patent's prosecution. POPR at 16-23. PO is wrong. Nam and Petitioner's arguments are “materially different than” those applied during prosecution because here Petitioner “presents evidence that” Nam “teaches the claim limitations that the Applicant argued were missing from the prior art applied by the Examiner.” *Microsoft Corp. v. Uniloc 2017 LLC*, IPR2019-01251, Paper 7, 2019 WL 7000081, at *5-7 (PTAB Dec. 20, 2019) (declining to deny institution); *PLR Worldwide Sales Ltd. v. Flip Phone Games, Inc.*, IPR2024-00209, Paper 9, 2024 WL 2106683, at *7 (PTAB May 10, 2024) (art is not cumulative when it “disclose[s] the very limitations that were the basis for allowance”); *Simpson Strong-Tie Co. Inc. v. Columbia Insurance Co.*, PGR2023-00049, Paper 7, 2024 WL 1244879, at *10 (PTAB Mar. 22, 2024) (same).

As Petitioner concedes, during prosecution the Board found that “[t]he Examiner does not establish that Piedboeuf’s products, *merely due to having multiple bands with color variation*, are equivalent to the Appellant’s *simulated natural wood grained products*” or explain how a POSITA would have used “Piedboeuf’s process to ma[k]e *a simulated natural wood product*.” POPR at 19-20; RPI1004 at 396 (“The Examiner does not establish that...Piedboeuf would have suggested forming the streams of viscous material such that the product has” “*a simulated wood grain appearance*” or “explain how [a POSITA] would have carried out Piedboeuf’s process in a way that produces a product having a *simulated wood grain appearance*”); 404 (“Piedbo[e]uf fails to teach the *simulated natural wood-grained* polymer boards” that “would have the same pattern as those described in the claims.”) (all emphasis added)).

In contrast, Nam explicitly describes and illustrates its products as “synthetic wood having striped grain” on “both the surface and interior” with the goal of “realiz[ing] the naturalness of real wood.” Pet. at 24, 30-33. Unlike Piedboeuf, Nam also expressly discloses multiple sets of differently colored polymer layers that alternate throughout its simulated wood grain product, and extend along a “substantially uninterrupted” pattern in the entire width direction, “on both the surface *and interior*,” to form the “natural wood-grained appearance” throughout:



Pet. at 30, 38-40.

Petitioner has also provided evidence as to why a POSITA would have understood the polymer layers shown in Nam extending “substantially uninterrupted” in the width direction to follow a “curvilinear” path. In particular, Dr. Englund has explained why a POSITA would have expected polymers extruded through a helical mixer, such as the one shown in Nam, to exhibit a curved, rather than straight, pattern in the width direction. Pet. at 41-42; RPI1005, ¶126. Dr. Englund further bolsters his opinion with numerous background art showing that it was known “that a helical static mixer” such as the one in Nam “would create curved layered patterns.” RPI1005, ¶126.² Indeed, Nam expressly states that its goal was to create synthetic wood “having striped grain” that could better “realize the

² PO’s suggestion that Dr. Englund merely “parrots arguments in the Petition and...fails to support his testimony with objective evidence” (POPR at 32) is therefore baseless. As with his opinion regarding the curvilinear layers produced by a helical static mixer, Dr. Englund supports the opinions throughout his entire declaration with multiple background references. *See generally*, RPI1005. PO’s reliance on *NHK Spring Co., Ltd. v. Intri-Plex Techs., Inc.*, to criticize Dr. Englund’s opinion is therefore wide of the mark. *See* POPR at 32 (citing IPR2018-00752, Paper 8 at 16-17 (PTAB Sept. 12, 2018)).

naturalness of real wood” (Pet. at 33, 34), which would not be accomplished by having straight grains that do not appear in nature.

PO's contention that Petitioner's arguments regarding Nam are “conclusory” and “no different than the Examiner's arguments about Piedboeuf” (POPR at 22-23) therefore ring hollow. Unlike the Examiner, who was criticized for simply assuming that the “process described in Piedboeuf ‘would ultimately result’ in the claimed structures during prosecution” (POPR at 19 (citing T2008 at 9)), Petitioner's arguments are supported with the express disclosures of Nam itself and the expert testimony of Dr. Englund, which is further supported by myriad background art.³

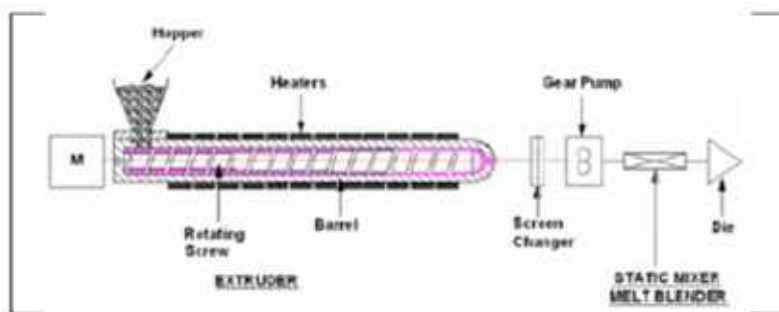
Petitioner's Nam-based Grounds 1 and 2 are therefore not cumulative of previously-considered prior art or arguments and institution should be granted. *See PLR Worldwide*, at *7 (“our analysis ends at this point, and we need not proceed to part two of the *Advanced Bionics* framework”); *PGS Geophysical AS v. Iancu*, 891 F.3d 1354, 1360 (Fed. Cir. 2018) (a decision to institute must include all grounds).

³ That Nam and Piedboeuf may disclose a similar extrusion process (POPR at 21-22) is of no moment. First, PO's purported invention “does not claim any process.” POPR at 11 (quoting T2010 at 8). Moreover, the alleged similarities—the use of multiple extruders, a static mixer, a feed block for feeding polymers before mixing, and a die following the static mixer (POPR at 21)—are common to many extrusion systems. Indeed, they are also present in the '350 patent (*E.g.*, RPI1001 at Figs. 1-5, 3:64-4:18, 4:43-65, 5:31-42, 6:16-23). Such “high-level” similarities “are to be expected” among references within the same field of art and do not render them cumulative. *See PLR Worldwide*, at *7.

B. StaMixCo Provides Additional Non-Cumulative Disclosures Deemed Missing from Previously Considered Prior Art

Because Nam is not cumulative, neither is its combination with StaMixCo (Grounds 1-2), nor was that combination previously considered (Pet. at 83-85). And StaMixCo provides additional disclosures related to the “wood grain appearance” previously found to be missing in the prior art. Pet. at 32-36, 38-44.

PO first argues that the 12-page StaMixCo reference (RPI1010) is cumulative because it is “identical in relevant aspects” to a terse webpage (RPI1038) listed in an IDS. POPR 24-27. But contrary to PO’s argument (POPR at 27), Petitioner *has* identified several “relevant differences between these references” (Pet. at 84-85). The only arguably relevant purported overlap PO has identified is Fig. 20 of StaMixCo (Petitioner does not rely on Fig. 17). But even that figure appears in RPI1038 without any of the critical disclosures and illustrations that accompany it in StaMixCo. See Pet. at 84-85. For example, RPI1038 does not disclose the extrusion machine shown in StaMixCo (that is similar to the one shown in Nam), or that the mixer can be “installed just in front of the extruder die” in such a machine:



(RPI1010, Fig. 1)

Pet. at 23, 33-35, 84-85. RPI1038 also omits StaMixCo's disclosures explaining that the static mixer could be used in such a machine to extrude multi-colored viscous polymers (just as in Nam). Pet. at 23-24, 84-85. And StaMixCo makes it clear that its Figure 20 (similar to Nam's Figure 2) is showing "cross-sectional cuts...made at the outlet of each mixing element" as the "[m]olten polymer...flows through the static mixer," resulting in progressively more multi-colored curvilinear layers after each mixing element. Pet. at 23-24, 84-85. RPI1038 again lacks such disclosure. Nor does RPI1038 include StaMixCo's express disclosure that the mixer can be used to extrude a rectangular board (as is also the case in Nam). RPI1010 at Figs. 3, 4.

Relevant here, Petitioner uses StaMixCo to confirm that Nam's helical static mixer would produce "natural wood-grained" and "curvilinear" layers along the width direction of Nam's board or, alternatively, to show that it would have been obvious to use StaMixCo's helical static mixer in Nam's extrusion machine to make those layers more "curvilinear" and "natural wood-grained" to further Nam's goal of "realiz[ing] the naturalness of real wood." Pet. at 24, 33-44. Petitioner relies on these similarities in the Nam and StaMixCo disclosures (which are absent from RPI1038), supported by expert testimony from Dr. Englund, to show that a POSITA would have been motivated to do so, how a POSITA would have done so, and that a POSITA would have had a reasonable expectation of success. Pet. at 33-44.

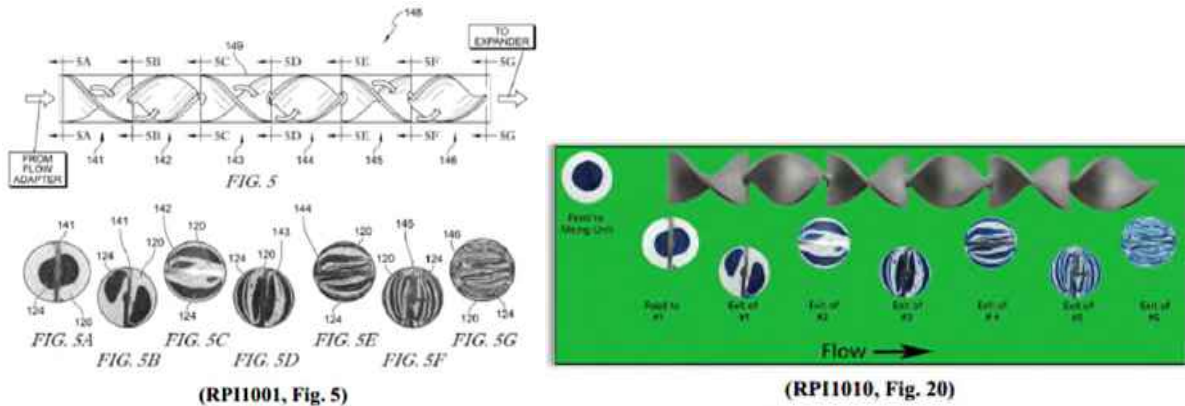
These missing disclosures from RPI1038 are particularly relevant in view of the Board's finding during prosecution that the Examiner failed to "explain how, regardless of [the] differences" between the processes of the Piedboeuf and Sudano prior art "Sudano would have led one of ordinary skill in the art to use Piedboeuf's process to ma[k]e a simulated natural wood product" (RPI1004 at 397). Here the missing disclosures from RPI1038 provide the very link between Nam and StaMixCo that the Board found was missing for the art previously before it. StaMixCo therefore is not cumulative of RPI1038.⁴

Further, even if StaMixCo (and its combination with Nam) were considered cumulative, the Examiner materially erred in his analysis of the art. Other than appearing on an IDS filed three years into prosecution, RPI1038 is not mentioned anywhere in the prosecution history, and was not the basis for any rejection (Pet. at 84; POPR at 24-25). This on its own "weighs strongly against exercising...discretion to deny institution under 35 U.S.C. § 325(d)." *Cellco P'ship v. Huawei Device Co., Ltd.*, IPR2020-01117, Paper 10, 2021 WL 389532, at *5 (PTAB Feb. 3, 2021).

Moreover, had the Examiner properly considered RPI1038, the Examiner would have realized that the supposedly "key" disclosure in Figure 5 of the '350

⁴ The district court's dismissal of Petitioner's inequitable conduct counterclaim (see POPR at 27-28) was made *without prejudice* and on a more limited record, was not based on the combination of Nam and StaMixCo that is asserted in the Petition, and should have no applicability to finding that StaMixCo is not cumulative here.

patent that teaches the formation of the “curvilinear” layers having a “wood-grained appearance” was actually copied from RPI1038 (and StaMixCo):



Pet. at 3. Indeed, by the patent’s own admission, simply extruding the layered patterns depicted in RPI1038 (and in StaMixCo) through a die—which StaMixCo discloses is how its mixer can be used—results in the “curvilinear” paths that create “a natural wood-grained appearance” within the polymer board that was the basis for patentability for the ’350 patent. Pet. at 8-10, 33-44. The Examiner’s finding during prosecution that the ’350 patent was the “only” teaching of this feature was therefore a material error, as that “key” feature was copied from the prior art, a fact that the Applicants concealed from the Patent Office. *Id.* at 15-16.⁵

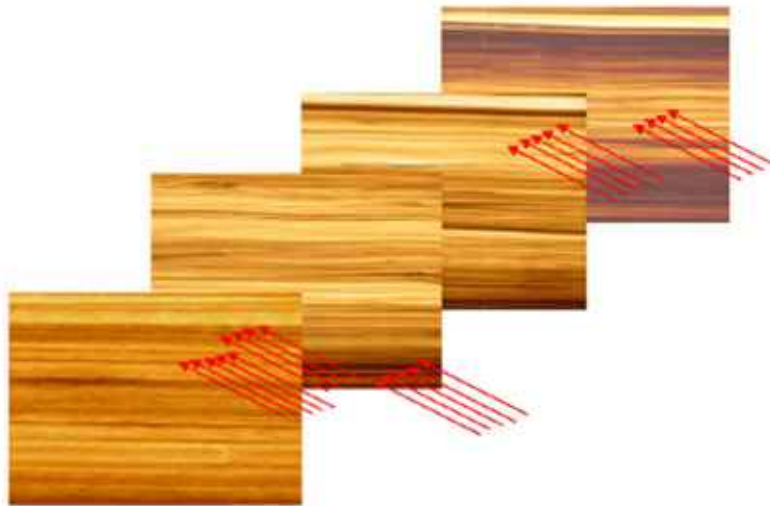
⁵ Contrary to PO’s argument (POPR at 32), Petitioner is not precluded from identifying a material error made during prosecution in this reply as it is permitted to “respond to arguments” in the POPR and was expressly authorized to do so by the Board. See *PLR Worldwide Sales Ltd. v. Flip Phone Games, Inc.*, IPR2024-00132, Paper 9, 2024 WL 1892705, at *5 n.3 (PTAB Apr. 30, 2024); 37 C.F.R. § 42.23(b).

C. Zumbrunnen Was Not Previously Considered and Expressly Discloses Elements Deemed Missing from Previous Prior Art

PO does not dispute that Zumbrunnen was not considered during prosecution. Pet. at 83. As an initial matter, unlike Piedboeuf, Zumbrunnen does not utilize a *static* mixer in its extrusion system, much less a helical one, and instead implements rotating stir rods to create chaotic advection that produces curvilinear layering in its products. *E.g.*, Pet. at 4, 26, 70, 83; RPI1005, ¶¶ 32, 98-102. Grounds 3-4 are therefore not cumulative of different system of Piedboeuf for this reason alone.

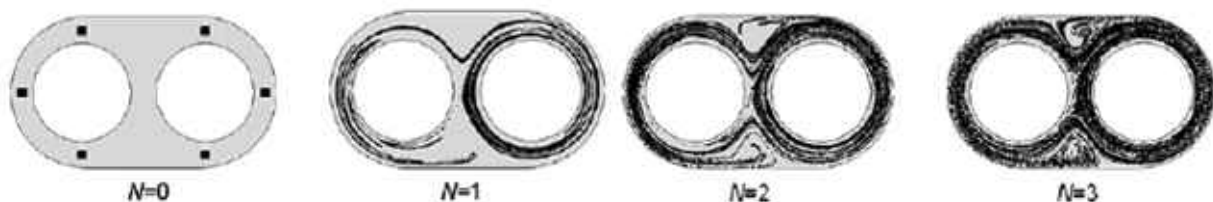
Moreover, just as with the Nam-based Grounds 1-2, Petitioner's Grounds 3-4 relying on Zumbrunnen are also "materially different" from what was previously before the Patent Office because Petitioner here "presents evidence that" Zumbrunnen "teaches the claim limitations that the Applicant argued were missing from the prior art applied by the Examiner." *Microsoft*, 2019 WL 7000081, at *5-7; *PLR*, 2024 WL 2106683, at *7; *Simpson*, 2024 WL 1244879, at *10. Like Nam, and in contrast to the Board's findings regarding Piedboeuf, Zumbrunnen expressly describes and illustrates plastic wood having "*various wood grain patterns*" in which, "[l]ike cut wood, the *simulated grain appears both on the surface and interior*." Pet. at 26-28, 60-61, 66-71 (emphasis added). It even discloses using specific "pigmented polymer resins...intended specifically to impart *wood appearance*." *Id.* (emphasis added). Unlike Piedboeuf, Zumbrunnen also expressly shows its polymer layers alternating throughout its simulated wood grain product,

and extending “substantially uninterrupted” along their entire length, in a “curvilinear” pattern, allowing an “infinite variety of simulated wood patterns” to be formed throughout:



Pet. at 64-71.

As noted above, Zumbrunnen expressly confirms that these same patterns appear “*both inside and on surfaces*” of its plastic wood and “can be repeated” along any interval. Pet. at 66. Zumbrunnen even shows cross-sections during the extrusion process, confirming that these alternating “curvilinear” layers also exist inside of Zumbrunnen’s board and are continuous or “substantially uninterrupted” along the entire cross-section, in either a horizontal or vertical orientation:



Pet. at 66-71. Figs. 22.1 and 22.2 further confirm this understanding, showing a side view of Zumbrunnen's plastic wood with the alternating layers extending uninterrupted along the entire length. Pet. at 69-70. Petitioner has also provided evidence from Dr. Englund to confirm a POSITA's understanding of Zumbrunnen's disclosures, including why a POSITA would have understood them to show that the "substantially uninterrupted," "curvilinear" polymer layer patterns giving Zumbrunnen's wood its "natural wood-grained" appearance would continue along its width direction. Pet. at 66-71; RPI1005, ¶¶ 184-88

Petitioner's arguments regarding Zumbrunnen therefore are hardly the "type of conclusory assertion" for which the Board and the Applicant previously criticized the Examiner. POPR at 38, 19 (citing T2008 at 9). Petitioner does not merely assume that the process described in Zumbrunnen would result in the claimed structures but has instead supported its arguments with the express disclosures of Zumbrunnen and the expert testimony of Dr. Englund. Petitioner's Zumbrunnen-based Grounds 3 and 4 therefore are not cumulative of anything previously considered, and institution should be granted. *See PLR Worldwide*, at *7; *PGS Geophysical*, 891 F.3d at 1360.

D. Rassi Is Non-Cumulative Secondary Prior Art and Is Only Used to Disclose Limitations That Were Not Material to Patentability

PO contends that Rassi was considered by the Examiner during prosecution simply because its patent number appears as a search term in one of the Examiner's prior art searches. POPR at 28-29. As an initial matter, PO offers no authority to

support that this passing reference is sufficient to establish that the Examiner considered Rassi during examination where the reference is not even listed on the face of the patent. *Advanced Bionics, LLC v. MED-EL*, IPR2019-01469, Paper 6 at 7-8 (PTAB Feb. 13, 2020) (“Previously presented art includes art made of record by the Examiner, and art provided to the Office by an applicant, such as on an [IDS].”⁶ And even if this passing reference to Rassi could be likened to disclosure on an IDS, because Rassi is not mentioned anywhere else nor the basis for any rejection, this on its own “weighs strongly against exercising...discretion to deny institution under 35 U.S.C. § 325(d).” *Cellco*, 2021 WL 389532, at *5.

Moreover, the Petition relies on Rassi only “as a secondary reference to disclose limitations... that were not material to the alleged patentability of the claims during prosecution.” *Simpson Strong-Tie*, 2024 WL 1244879, at *10 (declining to deny institution). These include concepts that even one of the named inventors of the '350 patent admitted to have been well-known and not an inventive aspect of the claims, such as the use of HDPE, UV additives, or foaming agents in the simulated wood boards. *See, e.g.*, Pet. at 53-59, 80-83. Rassi therefore provides no reason to deny institution under § 325(d) here.

⁶ None of the cases on which PO relies (POPR at 28-29 and 31 (citing *Molins*, *Boragen*, *Fellowes*, and *Ocado*) supports its position, as each case involves references either cited in an office action or disclosed on an IDS. *Cf.* POPR at 25.

III. Construing “Substantially Uninterrupted” Is Unnecessary for Institution

PO argues that institution should be denied because Petitioner failed to explain why it took allegedly inconsistent claim construction positions here and in the district court regarding the term “substantially uninterrupted.” POPR at 42-44. But, in its Petition, Petitioner expressly disclosed its district court indefiniteness position and explained why construing the term is unnecessary here in view of the asserted prior art. Pet. at 17, 20-21 (collecting cases finding that “only those terms need be construed that are in controversy, and only to the extent necessary to resolve the controversy”).⁷ Because indefiniteness is “outside the scope of *inter partes* review,” there is “nothing improper about” a Petitioner arguing indefiniteness in district court “while simply saying here that the meaning of those terms is readily apparent or that no construction is necessary.” *Chanel, Inc. v. Molo Design, Ltd.*, IPR2022-00544, Paper 44, 2023 WL 5153646, at *5 (PTAB Aug. 9, 2023); Pet. at 17, 20-21.

Notably, PO does not put forth “any argument that Petitioner’s proposed approach here—not formally construing [the “substantially uninterrupted” term]—leads to an incorrect assessment of claim scope or...substantively matters when assessing Petitioner’s arguments.” *Chanel*, at *5 (finding that Petitioner did not fail to “meet[] its burden in setting forth its claim construction positions” in such

⁷ While Petitioner at first considered an alternative construction in the district court should the term not be found indefinite, Petitioner withdrew that construction after the parties exchanged and conferred about their constructions. See RPI1046 at 7.

circumstances). To the contrary, PO itself initially argued in the district court that this term did not require construction. RPI1009.⁸ And, indeed, the district court ultimately found “[n]o construction necessary” for this term. RPI1046 at 7. Because PO “does not dispute Petitioner’s position that [the Board] need not formally construe [the “substantially uninterrupted” term] to address the issues in this proceeding or offer a competing construction, [the Board] need not construe” this term. *See Chanel*, at *6. Denial of institution on this basis is therefore unwarranted.⁹

IV. Conclusion

As demonstrated in the Petition, there is more than a reasonable likelihood that Petitioner will prevail with respect to at least 1 of the Challenged Claims, and institution is therefore warranted. Neither Petitioner’s 35 U.S.C. § 325(d) nor claim construction arguments lead to a contrary conclusion.

⁸ PO did ultimately proffer a plain and ordinary meaning in its claim construction brief to avoid a finding of indefiniteness, but PO does not argue in its POPR that such meaning should apply or would make a difference here.

⁹ None of PO’s cited cases is factually similar to, nor supports denial of institution based on, the facts at hand. *Volkswagen Grp. of Am., Inc. v. Mich. Motor Techs. LLC*, IPR2020-00229, Paper 13 at 11-12 (PTAB July 6, 2020) (institution denied on merits using PO’s proposed construction); *Panasonic Corp. v. Optical Devices, LLC*, IPR2014-00302, Paper 9 at 7-9 (PTAB July 11, 2014) (same); *BioDelivery Scis. Int’l, Inc. v. MonoSol Rx, LLC*, IPR2014-00794, Paper 7 at 5-7 (PTAB Nov. 5, 2014) (institution denied on merits after adopting PO’s construction); *Orthopediatrics Corp. v. K2M, Inc.*, IPR2018-01548, Paper 9 at 10-11 (PTAB Mar. 1, 2019) (institution denied where Petitioner failed to address PO’s proposed construction and in the “unique circumstances...where Petitioner” *successfully* “advocated for a different claim construction in the...district court litigation”).

Respectfully submitted,

Dated: September 18, 2024

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Certificate of Service

I hereby certify that on September 18, 2024, I caused a true and correct copy of the foregoing materials to be served via electronic mail on the following counsel of record for the Petitioner:

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