



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
14/489,632	09/18/2014	Jasmin NITSCHÉ	441321US99	5734
22850	7590	06/02/2020	EXAMINER	
OBLON, MCCLELLAND, MAIER & NEUSTADT, L.L.P. 1940 DUKE STREET ALEXANDRIA, VA 22314			HOCK, ELLEN SUZANNE	
			ART UNIT	PAPER NUMBER
			1782	
			NOTIFICATION DATE	DELIVERY MODE
			06/02/2020	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

OBLONPAT@OBLON.COM
iahmadi@oblon.com
patentdocket@oblon.com

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte JASMIN NITSCHKE,
HARALD HAEGER, SEBASTIAN GEERKENS,
FRANZ-ERICH BAUMANN,
and REINHARD BEUTH

Appeal 2019-004548
Application 14/489,632
Technology Center 1700

Before ADRIENE LEPIANE HANLON, JEFFREY T. SMITH, and
JEFFREY R. SNAY, *Administrative Patent Judges*.

HANLON, *Administrative Patent Judge*.

DECISION ON APPEAL

A. STATEMENT OF THE CASE

The Appellant¹ filed an appeal under 35 U.S.C. § 134(a) from an Examiner's decision rejecting claims 1–3, 8–17, and 19. We have jurisdiction under 35 U.S.C. § 6(b). A hearing was held on May 13, 2020.²

¹ We use the word “Appellant” to refer to “applicant” as defined in 37 C.F.R. § 1.42. The Appellant identifies the real party in interest as Evonik Degussa GmbH. Appeal Brief dated December 20, 2018 (“App. Br.”), at 2.

² The transcript of the hearing (“Tr.”) will be entered in the Official file of the instant Application.

We AFFIRM.

The claims on appeal are directed to a molding composition comprising a partially aromatic copolyamide and an olefinic copolymer, wherein the molding composition does not contain an aliphatic homopolyamide.

Independent claim 1 is reproduced below from the Claims Appendix to the Appeal Brief. The limitation at issue is italicized.

Claim 1: A moulding composition, comprising at least 40 wt.% of the following components:

a) 60 to 99 parts by wt. of a partially aromatic copolyamide comprising as polymerized monomer units:

I) 40 to 90 mol% of a combination of hexamethylenediamine and terephthalic acid; and

II) 70 to 10 mol% of a lactam, a ω -aminocarboxylic acid, or both, with 11 or 12 C atoms,

the above mol% values being relative to the sum of I and II; and

b) 40 to 1 parts by wt. of an olefinic copolymer consisting of as polymerized monomer units:

i) 35 to 94.9 wt. % of ethene-based monomer units,

ii) 5 to 65 wt. % of monomer units based on 1-butene, and

iv) 0.1 to 2.5 wt. % of monomer units based on an aliphatically unsaturated dicarboxylic acid anhydride,

wherein:

at least one of the following conditions may be satisfied

at most 20% of the hexamethylenediamine can be replaced by the equivalent quantity of another diamine,

at most 20% of the terephthalic acid can be replaced by the equivalent quantity of another aromatic dicarboxylic acid, 1,4-cyclohexanedicarboxylic acid, or both, and

at most 20% of the repeating units of the lactam, the ω -aminocarboxylic acid, or both, with 11 or 12 C atoms can be replaced respectively by the equivalent number of units which are derived from a combination of hexamethylenediamine and a linear aliphatic dicarboxylic acid with 8 to 19 C atoms, a caprolactam, or both;

a sum of the weight % values of i), ii), iii)^[3] and iv) is 100%;

the sum of the parts by wt. of a) and b) is 100; and

the moulding composition does not contain an aliphatic homopolyamide.

App. Br. 12–13 (emphasis added).

The claims on appeal stand rejected as follows:

(1) claims 1–3, 8–12, 14–17, and 19 under 35 U.S.C. § 103 as unpatentable over Doshi et al.⁴ in view of Tanaka et al.⁵; and

(2) claim 13 under 35 U.S.C. § 103 as unpatentable over Doshi in view of Tanaka further in view of Desbois et al.⁶

B. DISCUSSION

Relying on comparative composition C21 in Doshi Table 18, the Examiner finds that a thermoplastic composition comprising a partially aromatic copolyamide (PA 610/6T) and a maleic anhydride grafted ethylene/ α -olefin

³ In an amendment dated November 24, 2017, the Appellant deleted the phrase “iii) 0 to 10 wt. % of monomer units based on an olefin different from i) and ii)” from claim 1. In the event of further prosecution, the Examiner and the Appellant should consider whether “iii)” should be deleted. *See* Tr. 10, l. 15–11, l. 13 (indicating that it was error to retain “iii”).

⁴ US 2012/0196973 A1, published August 2, 2012 (“Doshi”).

⁵ US 6,008,297, issued December 28, 1999 (“Tanaka”).

⁶ US 2012/0245283 A1, published September 27, 2012 (“Desbois”).

copolymer (PT-4), which satisfies the requirements of claim 1, was known in the art at the time of the Appellant's invention.⁷ Non-Final Act. 3.⁸

There is no dispute on appeal that comparative C21 does not contain an aliphatic homopolyamide as claimed. Nonetheless, the Appellant argues that the *inventive* compositions of Doshi "must include from 10 to 45 weight percent of an aliphatic homopolyamide." App. Br. 8. The Appellant argues that "the experimental data in [Doshi] clearly illustrates that omitting the aliphatic homopolyamide [as in comparative composition C21] leads to the resulting compositions hav[ing] significantly degraded characteristics." App. Br. 8 (emphasis omitted). For example, at the conclusion of Table 18, Doshi discloses that "[w]hile both compositions C21 and E29 [(i.e., an inventive composition)] show tan delta peak values below 0.21 when plasticizer is present, melt blended composition E29 shows improved high temperature modulus, and better high temperature tube burst pressure, compared to C21." Doshi ¶ 178; App. Br. 9 (citing Doshi ¶ 178).

The Examiner recognizes Doshi discloses that the inventive compositions, which include an aliphatic homopolyamide, have improved high temperature modulus compared to compositions, such as C21, that do not include an aliphatic homopolyamide. Ans. 9. Nonetheless, the Examiner explains that

Doshi et al. does not disclose that the moulding composition could not be formed if the aliphatic homopolyamide was omitted, simply the

⁷ The Examiner relies on Tanaka to show that the weight percentages of the maleic anhydride grafted ethylene/ α -olefin copolymer recited in claim 1 were known in the art at the time of the Appellant's invention. Non-Final Act. 4; Examiner's Answer dated March 20, 2019 ("Ans."), at 8. In the Briefs on appeal, the Appellant does not direct us to any error in the Examiner's findings as to Tanaka or the Examiner's reason for combining the teachings of Tanaka and Doshi.

⁸ Non-Final Action dated August 6, 2018.

composition with an aliphatic homopolyamide has an improved property. The fact that [a composition] without the aliphatic homopolyamide is shown to be less than optimal does not vitiate the fact that it is disclosed. . . . It has been clearly shown in Doshi et al. and the prosecution history that the moulding composition that omits the aliphatic homopolyamide can be used to form a moulding composition.^[9]

Ans. 9.

Turning to Table 18, Doshi discloses that the tan delta peak values of inventive composition E29 and comparative composition C21 are 0.17 and 0.18, respectively, and that the storage modulus @ 23° C. of composition C21 is *higher* than the storage modulus @ 23° C. of inventive composition E29. Doshi Table 18 also discloses that the storage modulus @ 125° C. and the tensile modulus @ 125° C. of inventive composition E29 are both 5 *Mpa higher* than those same properties in composition C21, and the burst pressure @ 125° C. of inventive composition E29 is 4 *bars higher* than the burst pressure @ 125° C. of composition C21.

Significantly, the Appellant does not direct us to any evidence or provide any technical reasoning explaining why the differences between the high temperature modulus and high temperature tube burst pressure of composition C21 and inventive composition E29 would have discouraged one of ordinary skill in the art from using composition C21 as a molding composition. The mere fact that

⁹ The Appellant indicates that “aliphatic homopolyamides” were excluded from the claimed composition “for the specific purpose of distinguishing the claimed inventions from the thermoplastic compositions of the primary reference Doshi.” App. Br. 6–7. The Appellant’s Specification states that aliphatic polyamides are *optional* (i.e., “may be contained as an additive”) and lists eighteen “[s]uitable aliphatic polyamides,” including PA1010. *See* App. Br. 3 (citing Spec. 10, ll. 12–17); *see also* Doshi Table 18 (disclosing that PA1010 is used in inventive composition E29). The disclosed compositions are said to be useful as molding compositions regardless of whether they include an aliphatic homopolyamide.

inventive composition E29 exhibits “improved” high temperature modulus and “better” high temperature tube burst pressure than composition C21, without more, does not demonstrate nonobviousness. *See* Doshi ¶ 178.

On balance, a preponderance of the evidence of record supports the Examiner’s conclusion of obviousness as to claim 1. The Appellant does not present arguments in support of the separate patentability of any of dependent claims 2, 3, 8–17, and 19. Therefore, the obviousness rejections of claims 1–3, 8–17, and 19 are sustained.

C. CONCLUSION

The Examiner’s decision is affirmed.

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
1–3, 8–12, 14–17, 19	103	Doshi, Tanaka,	1–3, 8–12, 14–17, 19	
13	103	Doshi, Tanaka, Desbois	13	
Overall Outcome			1–3, 8–17, 19	

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED