

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

OWENS CORNING,
Petitioner,

v.

CERTAINTIED CORPORATION,
Patent Owner.

Case IPR2014-01404
Patent 8,615,968 B2

Before BENJAMIN D. M. WOOD, JAMES A. TARTAL, and
KRISTINA M. KALAN, *Administrative Patent Judges*.

TARTAL, *Administrative Patent Judge*.

FINAL WRITTEN DECISION
35 U.S.C. § 318(a) and 37 C.F.R. § 42.73

I. INTRODUCTION

Petitioner Owens Corning filed a Petition (Paper 1, “Pet.”) requesting an *inter partes* review of claims 1–18 of U.S. Patent No. 8,615,968 B2 (Ex. 1038, “the ’968 patent”). Patent Owner CertainTeed Corporation filed a Preliminary Response. Paper 8 (“Prelim. Resp.”). We instituted an *inter partes* review of claims 1–18 based on two grounds of unpatentability:

- (1) obviousness under 35 U.S.C. § 103(a) over Venrick¹ and Frankoski,² and
- (2) obviousness under 35 U.S.C. § 103(a) over Venrick and Kiik.³ Paper 10.

After institution of trial, Patent Owner filed a Response (Paper 17, “PO Resp.”), to which Petitioner replied (Paper 26, “Reply”). An oral hearing was held on December 8, 2015, and a transcript of that hearing was entered in the record. Paper 34 (“Tr.”).

We have jurisdiction under 35 U.S.C. § 6(c). In this Final Written Decision, issued pursuant to 35 U.S.C. § 318(a) and 37 C.F.R. § 42.73, we determine that Petitioner has shown by a preponderance of the evidence that claims 1–18 are unpatentable.

II. BACKGROUND

A. *The ’968 Patent (Ex. 1038)*

The ’968 patent, titled “Shingle with Reinforcement Layer,” issued on December 31, 2013. The ’968 patent describes a shingle with an attached reinforcement layer through which fasteners may be applied, as well as a method of making that shingle and a roof embodying that shingle. Ex. 1038, Abstract.

¹ U.S. Patent No. 2,161,440, issued June 6, 1939 (Ex. 1013).

² U.S. Patent No. 5,822,943, issued October 20, 1998 (Ex. 1010).

³ U.S. Pub. No. 2001/0055680, published December 27, 2001 (Ex. 1018).

Figures 2 and 2A of the '968 patent are reproduced below.

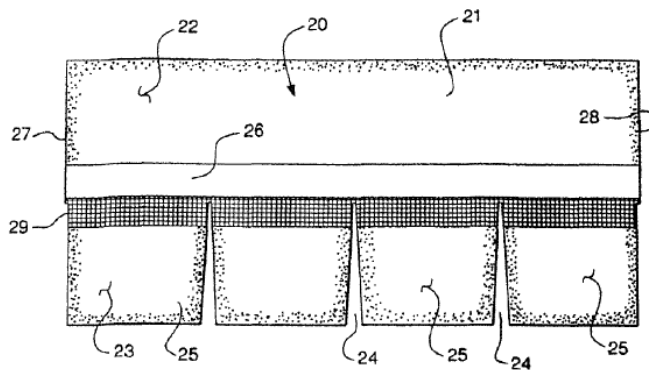


FIG. 2

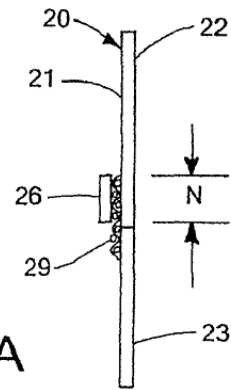


FIG. 2A

Figures 2 and 2A show shingle 20 with reinforcement layer (or “scrim layer”) 29 applied to rear surface 21 in accordance with the '968 patent. *Id.* at 3:22–27. According to the Specification, shingle 20 is similar to the prior art shingle shown in Figure 1 of the '968 patent in that it comprises a mat impregnated with asphalt and then coated with a granular material on each exposed surface. *Id.* at 2:56–62, 3:22–32. Unlike the prior art shingle, shingle 20 includes a reinforcement layer 29. *Id.* During construction of shingle 20, reinforcement layer 29 is applied before release tape 26 is applied, such that reinforcement layer 29 extends beneath release tape 26. *Id.* at 3:29–34. Release tape 26 prevents the shingle from sticking to a subjacent shingle when stacked, but is removed when the shingle is installed. *Id.* at 3:3–9. A nailing zone “N” on the front surface of shingle 20 is generally located above release tape 26, between edges 27 and 28, above slots 24. *Id.* at 3:20–22.

Reinforcement layer 29—preferably woven fiberglass scrim—is mounted on rear surface 21 opposite nailing zone N, across the upper end of tab portion 23 and the lower end of headlap portion 22. *Id.* at 3:22–32. The

scrim layer may extend farther into the tabs, as shown in Figure 3. *Id.* at 3:41–51, Fig. 3. Scrim layer 29 is not coated with asphalt or granules, which allows it to resist bending and cracking across the upper end of the tab portion when the shingle is bent by wind or other upward lifting forces. *Id.* at 3:55–63. In use, the shingle is nailed through the nailing zone and reinforcement layer onto the roof. *Id.* at 4:32–40. The reinforcement layer catches the nail and helps keep the shingle more securely fastened to the roof in adverse conditions. *Id.* at 4:40–50, 7:10–24.

B. Illustrative Claim

Claims 1, 11, and 17 of the '968 patent are independent. Claims 2–10 ultimately depend from claim 1, claims 12–16 ultimately depend from claim 11, and claim 18 depends from claim 17. Claims 1 and 17 of the '968 patent are illustrative of the claims at issue:

1. An array of shingles applied to a roof, by fasteners, in courses, each shingle having front and rear exterior surfaces and being comprised of shingle material, with the shingle having a width defined by upper and lower edges and a length defined by right and left edges, the shingle comprising:
 - (a) a base layer of mat having front and rear surfaces;
 - (b) a coating of asphaltic material on both front and rear surfaces of the mat;
 - (c) coatings of granular material on said both front and rear surfaces of the mat, which, together with said base layer of mat and said coating of asphaltic material comprise a first thickness layer;
 - (d) a longitudinal fastening zone between right and left shingle edges, generally intermediate said upper and lower edges;
 - (e) and an at least partially externally visible generally longitudinal reinforcement second thickness layer of a substantially thinner dimension than said first thickness layer; said reinforcement second thickness layer being

adhered to an exterior surface of said shingle and extending at least substantially between right and left edges of the shingle; and

- (f) said reinforcement second thickness layer extending at least partially lower than the fastening zone, toward the lower edge of the shingle or at least partially into the fastening zone toward the upper edge of the shingle.

Ex. 1038, 7:30–55.

17. A shingle having front and rear exterior surfaces and being comprised of shingle material, with the shingle having a width defined by upper and lower edges and a length defined by right and left edges, the shingle comprising:

- (a) a base layer of mat having front and rear surfaces;
- (b) a coating of asphaltic material on both front and rear surfaces of the mat;
- (c) coatings of granular material on said both front and rear surfaces of the mat, which, together with said base layer of mat and said coating of asphaltic material comprise a first thickness layer;
- (d) a longitudinal fastening zone between right and left shingle edges, generally intermediate said upper and lower edges;
- (e) and an at least partially externally visible generally longitudinal reinforcement second thickness layer of a substantially thinner dimension than said first thickness layer; said reinforcement second thickness layer being adhered to an exterior surface of said shingle and extending at least substantially between right and left edges of the shingle;
- (f) said reinforcement second thickness layer extending at least partially lower than the fastening zone, toward the lower edge of the shingle or at least partially into the fastening zone toward the upper edge of the shingle;
- (g) wherein each shingle is comprised of at least two layers of shingle material laminated together, with the front and rear surfaces being on opposite sides of the shingle; and
- (h) wherein the at least two layers of shingle material comprise a top sheet and a backing sheet, with the top

sheet including a plurality of alternating tabs and cut out portions along a lower longitudinal edge of the top sheet, with portions of the backing sheet being visible through the cutout portions being defined by edges of the tabs and with the cutout portions being of a plurality of longitudinal dimensions.

Ex. 1038, 9:12–10:23.

III. ANALYSIS

A. *Claim Construction*

Petitioner proposes constructions for “said shingle,” “adhered to an exterior surface of said shingle,” “reinforcement . . . layer,” and “substantially thinner.” Pet. 23–31. Patent Owner does not respond to Petitioner’s proposed constructions or advocate its own construction for any term.

We determine that no express claim construction is required for any term. *See Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999) (holding that “only those [claim] terms need be construed that are in controversy, and only to the extent necessary to resolve the controversy”). All terms will be accorded their ordinary and customary meaning as would be understood by one of ordinary skill at the time of the invention.

B. *Obviousness Over Venrick and Either Frankoski or Kiik*

Petitioner contends claims 1–18 would have been obvious over Venrick and Frankoski. Pet. 40–49. Petitioner also asserts claims 1–18 would have been obvious over Venrick and Kiik. *Id.* at 49–58. Petitioner’s contentions are supported by the Declaration of Michael L. Bryson. Ex. 1003. In opposition to Petitioner’s contentions, Patent Owner relies on the Declaration of Robert E. Metz. Ex. 2009.

In resolving the question of the obviousness of the claims, we consider the following underlying factual determinations: (1) the scope and content of the prior art; (2) the level of skill in the art; (3) any differences between the claimed subject matter and the prior art; and (4) secondary considerations of non-obviousness. *See Graham v. John Deere Co.*, 383 U.S. 1, 17 (1966).

1. *Scope and Content of the Prior Art*

(a) *Venrick (Ex. 1013)*

Venrick describes an otherwise “well known” roofing shingle to which is added a “raised median portion,” or “reinforcing strip” extending longitudinally along the shingle. Ex. 1013, 1:1:1–30, 40–41.⁴ The shingle described by Venrick has “a reinforcing strip strengthening the upper ends of the openings between tabs to reduce the tendency of the shingle to tear at the upper ends of said openings and which strip will further provide a reinforced area for nailing the shingle to the roof.” *Id.* at 1:1:40–46.

⁴ Our citations to Venrick are in the form of page:column:line(s), the page numbers being those original to the document rather than those added by Petitioner. Thus, Ex. 1013 1:1:1–30 refers to Venrick page 1, column 1, lines 1–30.

Figure 1 of Venrick is reproduced below.

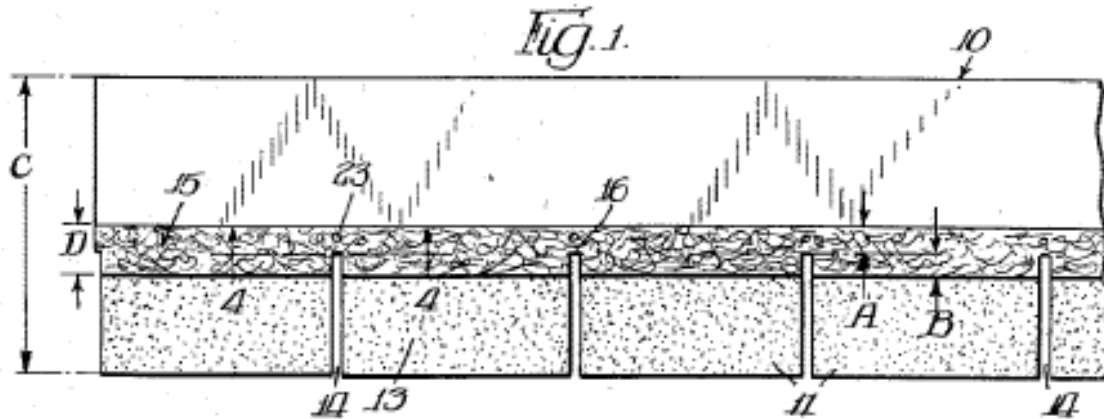


Figure 1 shows a top plan view of a strip shingle as disclosed by Venrick. *Id.* at 1:2:7–8. Shingle strip 10 consists of felt base 12 that is “saturated and coated with asphalt and surfaced with mineral granules 13.” *Id.* at 1:2:44–51. Raised median strip 15, also identified as raised strip 15 or raised portion 15, “extends longitudinally of the shingle in the vicinity of the upper ends 16 of the openings 14” and “protrudes from the upper surface.” *Id.* at 2:1:13–16. Upper ends 16 “are effectively strengthened and reinforced so as to prevent tearing of the shingle at these points.” The strip “may be formed of felt, metal, or alternate layers of granules or asphalt, or layers of roofing tape suitably bonded together.” *Id.* at 2:2:44–48, 2:2:75–3:1:1. Median strip 15 is preferably applied to the shingle after manufacture, “and thus said strip will be suitably cemented to the granule surfacing 13.” *Id.* at 2:1:35–37. The raised median strip may also be located on the undersurface of the shingle. *Id.* at 2:2:60–62, Figs. 8, 10, 12.

The raised median portion serves several purposes. First, when Venrick’s shingles are installed on a roof, the raised median strip supports “the butt end of the overlapping of the next horizontal course,” giving “a semblance of thickness to the butt ends of the shingles . . . resulting in a

better shadowline” and “a heavy substantial appearance” to the roof as a whole. *Id.* at 1:1:30–37, Fig. 3. Second, as noted above, because the strip is located over upper ends 16 of openings 14, the strip “strengthens and reinforce[s] [upper ends 16] to prevent tearing at these points.” *Id.* Third, the strip “give[s] greater nailing strength to the shingle” so that “the shingle will not readily tear at the nail holes.” *Id.* at 2:2:16–19. Finally, the raised strip prevents moisture from seeping between shingles by “act[ing] as a barrier” and adding rigidity that resists the lifting of the butt end of the shingle by wind. *Id.* at 2:2:31–33.

(b) *Frankoski (Ex. 1010)*

Frankoski is directed to an asphalt-based roofing shingle that includes “a substrate including at least one composite having a scrim bonded to a mat, coated with filled asphalt and granules.” Ex. 1010, Abstract. Frankoski describes a shingle with improved long-term performance, which is achieved “by using a substrate exhibiting properties which will maintain its physical characteristics throughout the life of the product.” *Id.* at 3:17–20. The substrate preferably comprises “a fiberglass scrim/fiberglass mat composite including a rubberized binder, which provides a superior strength and nail pull-through resistance to withstand, for example, hurricane force winds.” *Id.* at 3:21–25.

Figure 1 of Frankoski is reproduced below:

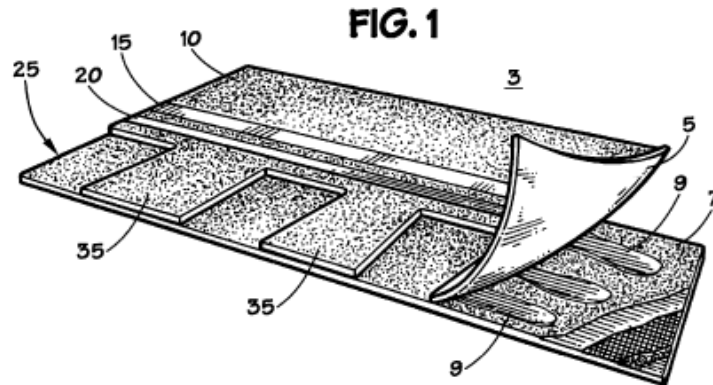


Figure 1 depicts an exemplary two-ply laminated roofing shingle 3 comprising upper layer 5 bonded to lower layer 7, including headlap area 10, sealant line 15, and nail zone 20. Ex. 1010, Fig. 1, 4:11–12, 4:23–29. Lower layer 7 serves as a “backing piece” and “preferably is at least about 6 inches wide.” *Id.* at 4:51–53.

Figure 2 of Frankoski is reproduced below:

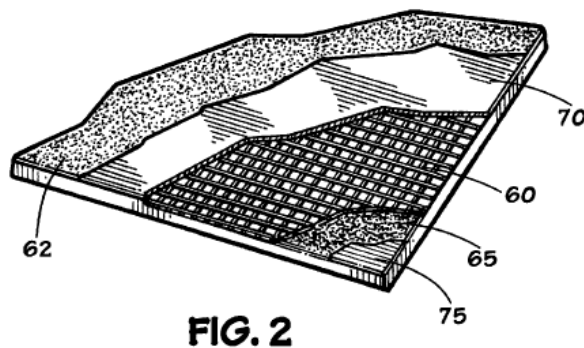


Figure 2 is a more detailed view of lower layer 7 of shingle 3 shown in Figure 1 of Frankoski. *Id.* at 4:66–67. The shingle includes a layer of granules 62 embedded on upper coating layer 70. *Id.* at 5:2–3. Upper scrim 60 is bonded to lower mat (or “base mat”) 65, which together are covered by upper and lower coating layers 70, 75. *Id.* at 5:1–6. Scrim 60 “preferably extends along the entire length and width of the shingle,” but partial size

scrims also may be used, e.g., one that is “three or four inches wide and positioned so as to coincide with the nail zone of the shingle.” *Id.* at 5:27–34. Frankoski further states that the scrim layer can be placed “either above or below the mat.” *Id.* at 3:41–42.

(c) *Kiik (Ex. 1018)*

Kiik discloses “roofing shingles, having a novel backing which renders the material pliable and imparts improved characteristics such as resistance to damage from hail.” Ex. 1018 ¶ 1. Kiik states that “[t]raditionally, the lower surface or back of roofing material such as shingles has been covered with finely ground mineral material (fines) so that the asphalt backing does not adhere to contiguous roofing material when packaged for transport and storage.” *Id.* ¶ 2. In a preferred embodiment, Kiik discloses that the backing may be made of a woven or non-woven polyester mat, although a variety of other materials may also be used. *Id.* ¶¶ 4, 6. “The backing material is adhered to the face of the back of the shingle in lieu of fines, granules or other standard backing material,” and “may provide full or partial coverage of the lower surface of the shingles.” *Id.* ¶¶ 7, 10. “Shingles made with the inventive polyester backing . . . demonstrate increased nail holding ability and maintain structural integrity at elevated temperatures.” *Id.* ¶ 9.

(d) *The Relevance of the Respective Ages of the References*

Patent Owner states that the age of the cited references spans 60 years, and argues that “this fact alone would have significant import to a [person of ordinary skill in the art] in 2002.” PO Resp. 9. Particularly, Patent Owner argues that Venrick, which issued in 1939, identifies “issues with conventional organic shingles of that era” and teaches that, “[a]t that time, organic shingles were heavy and the nail was the shingle’s only point of

attachment.” *Id.* at 9–11. Patent Owner states that Frankoski “came almost 60 years later—at a time when shingles could be made from much lighter, fiberglass-based materials specifically because they were no longer held to a roof exclusively via nails and their own weight,” but also used asphalt-based sealing strips. *Id.* at 12. Regarding Kiik, Patent Owner argues that it concerns relatively light fiberglass shingles held to the roof via sealing strip. *Id.* at 13. In sum, Patent Owner argues: “By 2002, a [person of ordinary skill in the art] would have understood that Venrick [] arose out of a different technology era than Frankoski [] and Kiik [], and this fact would have significant import to a [person of ordinary skill in the art],” in that Venrick “was directed to multiple issues relating to that era’s heavy, pliant organic shingles, which were held to the roof exclusively by nails,” and that Venrick’s raised strip addressed those issues. *Id.* at 14.

Petitioner replies that, regardless of Venrick’s early publication date, there can be “no dispute that the pertinent art includes Venrick.” Reply 2; *see also* Tr. 24:14–21. Petitioner takes issue with Mr. Metz’s testimony that Venrick “arose out of a different technology era than” Frankoski and Kiik, stating that Mr. Metz admitted that Venrick, like Frankoski and Kiik, relates to the field of roofing materials and, in particular, asphalt shingles. *Id.* at 14–15 (citing Ex. 1046, *passim*). Petitioner also criticizes “Patent Owner’s attempt to create a technological divide between shingles made of organic mat, and so-called ‘modern’ shingles” as fictitious, stating that even Patent Owner continued to make and sell organic shingles at least through 2005. *Id.*

at 15. Petitioner also points out that Frankoski discloses organic shingles. *Id.* at 16 (citing Ex. 1010, 5:9–12).

The age of a cited reference, in and of itself, does not negate its use in determining obviousness. *See Nike, Inc. v. Adidas AG*, No. 2014-1719, 2016 WL 537609, at *9 (Fed. Cir. Feb. 11, 2016) (“[O]ur decision in *Leo Pharmaceutical [Products, Ltd. v. Rea*, 726 F.3d 1346, 1356–57 (Fed. Cir. 2013)] is entirely consistent with established precedent that ‘[t]he mere age of the references is not persuasive of the unobviousness of the combination of their teachings, absent evidence that, notwithstanding knowledge of the references, the art tried and failed to solve the problem’”). Patent Owner does not disagree. Tr. 43:5–6 (“[W]e don’t say that references because they are old are irrelevant.”). “Absent a showing of long-felt need or the failure of others, the mere passage of time without the claimed invention is not evidence of nonobviousness.” *Iron Grip Barbell Co., Inc. v. USA Sports, Inc.*, 392 F.3d 1317 (Fed. Cir. 2004) (citing *In re Wright*, 569 F.2d 1124, 1127 (C.C.P.A. 1977)). Patent Owner has not shown that the art tried and failed to solve the problem allegedly solved by the subject patent. Moreover, as we discuss *infra*, Patent Owner has made no showing of long-felt need or failure of others.

We also are not persuaded that Venrick’s age or subject matter would have prevented a person of ordinary skill from combining it with Frankoski or Kiik. Even though there is a temporal gap between Venrick and Frankoski or Kiik, a skilled artisan is presumed to have been aware of Venrick. *See Custom Accessories, Inc. v. Jeffrey–Allan Indus., Inc.*, 807 F.2d 955, 962 (Fed. Cir. 1986) (“[P]erson of ordinary skill is a hypothetical person who is presumed to be aware of all the pertinent prior art.”). Indeed, the skilled

artisan would not have dismissed or discounted Venrick because of subsequent technical advances occurring in the art up to the date of the invention, but would have read Venrick *in light of* those advances, including the use of fiberglass-based materials and sealing strips.

2. *Level of Skill in the Art*

Petitioner, as supported by Mr. Bryson, contends that one of ordinary skill in the art would have “a bachelor’s degree, and potentially some advanced schooling, in chemistry, engineering (such as chemical, civil, or mechanical engineering), materials science, physical science, or a related discipline, and approximately 3-5 years of additional training and experience in the field of roofing materials and asphalt shingles.” Pet. 23 (citing Ex. 1003 ¶ 44).

Patent Owner argues that the testimony of Mr. Bryson should be given less weight, because he did not apply the proper level of skill in the art. PO Resp. 4–6. According to Patent Owner, Mr. Bryson later admitted during cross-examination that a person of ordinary skill in the art could have less skill, and thus the Board should reject the high level of skill initially set forth by Mr. Bryson in favor of the level set by Mr. Metz. *Id.* at 5–6.

Mr. Metz testified that a person of ordinary skill in the art would have: “(1) a bachelor’s degree in a related discipline (*i.e.*, physical science, materials science, or engineering) and one year of training and/or experience in the field of roofing materials and asphalt shingles or (2) two to three years training and/or experience in the field of roofing materials and asphalt shingles.” *Id.* at 5 (citing Ex. 2009 ¶ 9.).

The two levels of skill in the art put forth by Mr. Bryson and Mr. Metz are not substantially different, and in fact overlap significantly. As noted by

Patent Owner, Mr. Bryson later agreed that the skill level could be less. Neither party has explained how, if at all, the proposals of their respective experts regarding the level of ordinary skill change the analysis in this case. Moreover, an express definition of the level of ordinary skill is not required in all situations, as the level of ordinary skill in the art usually is evidenced by the references themselves. *See Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001); *In re GPAC Inc.*, 57 F.3d 1573, 1579 (Fed. Cir. 1995); *In re Oelrich*, 579 F.2d 86, 91 (C.C.P.A. 1978). We find the level of ordinary skill in the art to be reflected in the cited references, and we determine that no express statement of the level of ordinary skill in the art is required. We also are not persuaded that Mr. Bryson's testimony should be given less weight for failing to apply the proper level of skill in the art, because Patent Owner has not demonstrated how any substantive difference between the level of skill applied by Mr. Bryson and that asserted by Mr. Metz renders any of Mr. Bryson's testimony erroneous.

Patent Owner also argues that Mr. Bryson incorrectly used his personal skill and knowledge in his obviousness analysis. PO Resp. 6–9. Petitioner responds that Mr. Bryson provided his opinions from the point of view of a person of ordinary skill, and did not bring any special insights other than those that would be assessed by a person having that knowledge and experience. Tr. 17:14–18. Regarding the specific statements of Mr. Bryson highlighted by Patent Owner (PO Resp. 6–7), it is within our discretion to assign the appropriate weight to be accorded to the information in Mr. Bryson's testimony. Patent Owner argues that Mr. Bryson used an impermissibly high level of skill and his own personal knowledge of Kiik in rendering his opinions, but Mr. Bryson is also on the record as stating that he

used the perspective of a person of ordinary skill in the art as of November 6, 2002, in doing the analysis described in his declaration. Ex. 1003 ¶ 45; Ex. 2010, 290:10–19. The Board, sitting as a non-jury tribunal with administrative expertise, is well-positioned to determine and assign appropriate weight to evidence presented. *Gnosis S.P.A. v. S. Ala. Med. Sci. Found.*, Case IPR2013-00118, slip op. at 43 (PTAB June 20, 2014) (Paper 64). Accordingly, we evaluate Mr. Bryson’s testimony along with the remainder of the evidence before us to reach our conclusions.

3. *Differences Between the Claimed Subject Matter and the Prior Art*

(a) *Obviousness of Claims 1–18 Over Venrick and Frankoski*

We agree with Petitioner that both Venrick and Frankoski disclose features of an asphalt shingle, as well as an array of such shingles applied to a roof with fasteners, and a method for the same, corresponding to limitations (a)–(d) of claims 1, 11, and 17. See Pet. at 31–33, 40–49. For limitations (a), (b), and (c), Venrick describes, for example, shingle strip 10 consisting of felt base 12 that is saturated and coated with asphalt and surfaced with mineral granules. Ex. 1013, 1:2:46–50, Fig. 1. Venrick further teaches the longitudinal fastening zone of limitation (d), in that it teaches that “the shingles are nailed in a plurality of places and preferably immediately above the upper ends 16 of openings 14” (*id.* at 2:2:8–10), which is “generally intermediate said upper and lower edges,” as limitation (d) requires. See *id.* at Fig. 1 (depicting a row of nail openings 23 above tabs 11).

In addition, Venrick teaches adhering “raised median strip” 15 to the asphalt shingle across the upper section of tabs 11 and over the region where the shingle is nailed. *Id.* at 2:1:11–14, 2:2:11–17, Fig. 1. The raised median strip thus corresponds to the “generally longitudinal reinforcement second

thickness layer” of limitation (e) and “extend[s] at least partially lower than the fastening zone” as required by limitation (f), but Venrick does not describe the raised layer as having a “substantially thinner dimension than said first thickness layer,” as limitation (e) recites. On the contrary, Venrick discusses two specific embodiments, one having a median strip that is one and one-half times the thickness of the base shingle, the other having a median strip that is twice the thickness of the base shingle. *Id.* at 2:1:51–59, Figs. 4, 5.

Frankoski, like Venrick, discloses the prior art asphalt shingle meeting limitations (a) through (d) of claims 1, 11, and 17, and further discloses scrim layer 60 that is positioned to coincide with at least a portion of the shingle’s nail zone. Ex. 1010, 1:9–20, 4:22–38, 4:66–5:12, 5:29–42. There is no dispute that Frankoski’s scrim layer 60 is “of a substantially thinner dimension” than Venrick’s base shingle. PO Resp. 29; Ex. 1003 ¶¶ 882–83; Ex. 1046, 221:8–18, 265:4–21, 241:13–20. Further, we credit the testimony of Mr. Bryson that a person of ordinary skill would have understood that Frankoski’s scrim material could be adhered to the outer surface of a standard asphalt shingle in the same way that Venrick’s raised strip is adhered. Ex. 1003 ¶ 883.

Claim 17 further requires “each shingle is comprised of at least two layers of shingle material laminated together, with the front and rear surfaces being on opposite sides of the shingle.” Petitioner has shown such a “two-ply laminated shingle” was disclosed in Frankoski and was well-known in the art. Pet. 45, 48–49; Ex. 1010, 4:34, Fig. 1.

We have reviewed Petitioner’s evidence regarding dependent claims 2–10, 12–16, and 18, and determine that Petitioner has established that the

combination of Venrick and Frankoski describes the limitations of claims 2–10, 12–16, and 18. Pet. 45–49. Indeed, Patent Owner does not argue the patentability of any claim apart from claim 1. We determine that Petitioner has shown that the combination of Venrick and Frankoski meets all of the limitations of claims 1–18.

With regard to the rationale for combining Venrick and Frankoski, we agree with Petitioner that a person of ordinary skill would have had a reason to replace Venrick’s raised strip with Frankoski’s scrim layer. Frankoski teaches that its shingle reinforced with a fiberglass scrim substrate “provides a superior strength and nail pull-through resistance to withstand, for example, hurricane force winds.” Ex. 1010, 3:20–22. Frankoski provides test results demonstrating that the scrim layer improves nail-pull strength compared to a conventional shingle without the scrim layer. *Id.* at 3:55–58, 6:12–27, 6:47–61; *see also* Ex. 1003 ¶ 379. Further, Frankoski teaches that its scrim material improves tear resistance. *See* Ex. 1010, 3:53–55 (the “substrate [comprising fiberglass scrim] gives sufficient strength to the shingle so that during a storm the shingle is better able to resist the tendency of tabs to rip”). Patent Owner’s declarant, Robert Metz, agrees that Frankoski attributes these improvements to the scrim layer. Ex. 1046, 219:18–220:12.⁵

Moreover, a person of ordinary skill would have appreciated that a benefit in replacing Venrick’s raised strip with Frankoski’s scrim is that the

⁵ In this regard, Mr. Metz testified as follows:

Q. What does Frankoski disclose, generally?

A. Generally, that his product, by adding the—the scrim to the back—not the back, but inside the shingle as a—as a separate layer increased the properties of the different strength tests that he ran.

scrim is lighter than Venrick's raised strip, and thus would produce a lighter shingle. See Ex. 1003 ¶ 882; Ex. 1046, 312:16-22; see also Ex. 2013, 4:36–39 (lighter shingles “reduc[e] freight costs and roof loads”).

(b) Obviousness of Claims 1–18 Over Venrick and Kiik

We agree with Petitioner that both Venrick and Kiik disclose features of an asphalt shingle, as well as an array of such shingles applied to a roof with fasteners, and a method for the same, corresponding to limitations (a)–(d) of claims 1, 11, and 17. Pet. 49–54, 57–58. Kiik, like Venrick, discloses a “standard laminated” asphalt shingle, and further discloses a flexible backing material “adhered to the face of the back of the shingle.” Ex. 1018 ¶¶ 4, 6, 7, 10, 14; Ex. 1003 ¶ 926. Kiik teaches that “[s]hingles made with the inventive polyester backing have better tear strength than standard shingles backed with finely divided granules,” and “demonstrate increased nail holding ability.” Ex. 1018 ¶ 9. Further, there is no dispute that Kiik's backing material would have “a substantially thinner dimension” than Venrick's base shingle. Ex. 1003 ¶ 917; PO Resp. 28. We also credit the testimony of Mr. Bryson that a person of ordinary skill would have understood that Kiik's backing material could be adhered to the outer surface

Q. What properties?

A. Number one was tensile—I mean tear—and—tear strength, the resistance to separation, which is the nail test. He ran an adhesive test too on—on the product known as a bond strength test, and he ran a tensile test, yes.

Q. So—so by 2002 the person of ordinary skill in the art would have known that scrim would be used to improve these properties in an asphalt shingle, correct?

A. That's true.

of a standard asphalt shingle in the same way that Venrick's raised strip is adhered. Ex. 1003 ¶ 918–920.

Our analysis with respect to Venrick's disclosure of the elements of claims 1–18, *supra*, applies to the combination of Venrick and Kiik as well. Additionally, we have reviewed Petitioner's evidence regarding dependent claims 2–10, 12–16, and 18, and determine that Petitioner has established that the combination of Venrick and Kiik describes the limitations of claims 2–10, 12–16, and 18. *See* Pet. 54–58. Again, Patent Owner does not argue the patentability of any claim apart from claim 1. Thus, we determine that Petitioner has shown that the combination of Venrick and Kiik meets all of the limitations of claims 1–18.

With regard to the rationale for combining Venrick and Kiik, we agree with Petitioner that a person of ordinary skill would have had a reason to replace Venrick's raised strip with Kiik's backing material. Petitioner has shown that “the backing material in Kiik [] is reinforcement, i.e., to provide the shingle with ‘better tear strength,’ ‘pass impact tests despite their light product weight,’ and provide ‘increased nail holding ability and maintain structural integrity at elevated temperatures.’” Pet. 40 (citing Ex. 1018 ¶ 9; Ex. 1003 ¶ 913). Moreover, a person of ordinary skill would have appreciated that a benefit in replacing Venrick's raised strip with Kiik's “newer, more state-of-the-art materials” would be a lighter shingle with similar or better strength. *See* Ex. 1003 ¶ 917–920.

(c) Patent Owner's Arguments

Patent Owner makes a number of arguments against a determination of obviousness. We address each in turn.

(i) *Reason to Combine*

First, Patent Owner argues that Petitioner's reasons for combining Venrick with Frankoski or Kiik are without evidentiary support and are instead "contrived creations based on hindsight." PO Resp. 15–28. For example, according to Patent Owner, Petitioner's reason for combining Venrick and Frankoski is based on the assertion that Frankoski's scrim is at least as strong, if not stronger, than the materials Venrick teaches to use for its raised strip. *Id.* at 15. Patent Owner notes that the data in Frankoski, on which Petitioner and its declarant rely, "simply compares the nail strength of a shingle with an internal scrim reinforcement . . . to a shingle without any reinforcement," but does not compare Frankoski's scrim material with Venrick's raised-strip materials. *Id.* at 18. Patent Owner further argues that Mr. Bryson provides no other data supporting the comparative strength of Frankoski's scrim with respect to Venrick's materials; admits that some of Venrick's materials (metal or wood fiber strips) would have been stronger; and improperly relies on his personal opinion based on conclusory statements as to the relative strengths of the materials. *Id.* at 19–28. Patent Owner similarly argues that the data in Kiik on which Petitioner and its declarant rely to support a reason to combine Venrick and Kiik "has no bearing on a comparison of the relative strength of Kiik['s] materials with Venrick['s] materials," but, "[a]t most, it compares the nail strength of a shingle with a polyester reinforcement to a shingle without the polyester reinforcement." *Id.*

We agree with Patent Owner that the record does not contain any data specifically demonstrating that Frankoski's scrim material or Kiik's backing material is as strong as, or stronger than, Venrick's raised-strip materials.

However, we do not consider such data to be necessary to establish obviousness. A combination need not be superior to other alternatives to render an invention obvious. *See Dome Patent L.P. v. Lee*, 799 F.3d 1372, 1381 (Fed. Cir. 2015) (“just because better alternatives exist in the prior art does not mean that an inferior combination is inapt for obviousness purposes” (internal citations and quotation marks omitted)). We understand Petitioner’s contention to be that a person of ordinary skill would have had a reason to combine Venrick and Frankoski because, like Venrick’s raised strip, “the purpose of the scrim layer in Frankoski [] is reinforcement.” Pet. at 42; *see In re ICON Health and Fitness, Inc.*, 496 F.3d 1374, 1380 (Fed. Cir. 2007) (“the finding that Teague, by addressing a similar problem, provides analogous art to Icon’s application goes a long way towards demonstrating a reason to combine the two references”). Petitioner makes a similar contention with respect to the combination of Venrick with Kiik, namely, that “the purpose of the backing material in [Kiik] is reinforcement.” Pet. 52. Thus, we find sufficient to support a determination of obviousness over Venrick and Frankoski the evidence, discussed above, that a person of ordinary skill would have known that Frankoski’s scrim adds nail-pull strength and tear resistance to an asphalt shingle.

We also find persuasive the evidence, discussed above, that a person of ordinary skill would have considered it beneficial to use Frankoski’s scrim in place of Venrick’s raised strip because it would produce a lighter shingle. Likewise, we find sufficient to support a determination of obviousness over Venrick and Kiik the evidence, discussed above, that a person of ordinary skill would have known that Kiik’s polyester backing improves tear strength and nail holding ability, together with evidence that a person of ordinary skill

would have considered it beneficial to use Kiik's polyester backing in place of Venrick's raised strip because it would produce a lighter shingle.

(ii) *Reliability of Kiik's Data*

Patent Owner argues that Petitioner's declarant, Mr. Bryson, undercuts his opinion that one of ordinary skill in the art would be motivated to combine Kiik and Venrick to improve tear strength when he "admitted publicly" that the test method that Kiik used "may 'even be inappropriately applied to shingles' in general because of [its] unreliability." PO Resp. at 21 (quoting Ex. 2007); *see also id.* at 20–22. However, Mr. Bryson based his opinion that one of ordinary skill in the art would have reasonably expected Kiik's thin backing material to function as reinforcing material not only on Kiik's data, but also on other prior art, including Frankoski. Ex. 1003 ¶ 588 (citing, in addition to Kiik, Venrick, and Frankoski, "Olszyk 1974, Johnson 1996," and "Miller 1999"). Consideration of these additional references is proper, as the "expansive and flexible" approach to determining obviousness prohibits "narrowly focusing" on the specific references of the proposed combination, but requires consideration of "additional record evidence" demonstrating the "knowledge and perspective of one of ordinary skill in the art." *Randall Mfg. v. Rea*, 733 F.3d 1355, 1362 (Fed. Cir. 2013). Further, "obviousness does not require absolute predictability of success . . . all that is required is a reasonable expectation of success." *In re O'Farrell*, 853 F.2d 894, 903–04 (Fed. Cir. 1988). We credit Mr. Bryson's testimony, in light of Kiik and Frankoski and the other references cited, that one of ordinary skill in the art would reasonably have expected Kiik's backing material and Frankoski's scrim layer to function as reinforcing material, which would have given the skilled artisan a reason to combine Kiik or Frankoski with

Venrick. In all other respects, our response to Patent Owner's arguments concerning the combination of Venrick and Frankoski apply equally to Patent Owner's arguments with respect to Venrick and Kiik.

(iii) *Principle of Operation*

Patent Owner argues that replacing Venrick's raised strip with Frankoski's scrim would eliminate Venrick's principle of operation because it would eliminate the thickness and rigidity of the reinforcement layer.

PO Resp. 28–31. According to Patent Owner, combining Frankoski or Kiik with Venrick would eliminate “the ‘raised’ aspect of Venrick.” *Id.* at 29.

Patent Owner argues that Venrick teaches that the thickness and rigidity of the raised strip is “the way” in which the raised strip achieves its results (i.e., adding a semblance of thickness to a roof, preventing water seepage, improving nail-pull strength and tear resistance), but replacing Venrick's raised strip with Frankoski's scrim would eliminate these characteristics. PO Resp. 30–32. Similarly, Patent Owner argues that the asserted combination takes “reinforcement” out of context, because “[n]owhere in Venrick [] is an unraised ‘reinforcing strip’ even suggested.” *Id.* at 32–34.

This argument is unpersuasive, however, because it invites us to consider Venrick alone rather than considering the prior art as a whole in view of the knowledge of a person of ordinary skill in the art. *See Randall Mfg.*, 733 F.3d at 1362 (“[T]he [KSR] Court required an analysis that reads the prior art in context, taking account of ‘demands known to the design community,’ ‘the background knowledge possessed by a person having ordinary skill in the art,’ and ‘the inferences and creative steps that a person of ordinary skill in the art would employ’” (quoting *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007)).). Considering Venrick in light of Frankoski,

Kiik, and the knowledge of a skilled artisan, one of ordinary skill would have known that the specific properties of thickness and rigidity, *per se*, were not necessary to achieve most, if not all, of Venrick's objectives.

Whereas conventional shingles in Venrick's time were attached to a roof only by nails, by 1998, when Frankoski issued, shingles employed asphalt "sealing strips," in addition to nails, for this purpose. PO Resp. 12 (citing Ex. 2011, R6). Patent Owner's declarant, Mr. Metz, testified that sealing (or "sealant") strips also addressed Venrick's concern regarding water seepage. Ex. 1046, 325:5–326:9. As Patent Owner acknowledges, using sealing strips "made a separate bulky, thick, and strong nail zone reinforcement unnecessary." PO Resp. 13. But sealing strips did not eliminate the need for additional reinforcement entirely. Frankoski teaches that shingles did not meet newer industry standards—i.e., ASTM D-3462, which "relat[es] to fastener pull-through and tear strength"—on a consistent basis. Ex. 1010, 1:41–44, 53–55, 2:7–8. Thus, there still existed the need to improve nail pull-through strength and tear resistance, a need that both Frankoski and Kiik addressed with a reinforcement layer that is neither thick nor rigid.

Patent Owner next argues that replacing Venrick's raised strip with Frankoski's thin reinforcement layer would eliminate Venrick's principle of operation because it would "contravene[] an express teaching" of Venrick "to enhance the aesthetic appeal of the shingle." PO Resp. 44; *see also id.* at 34–40. However, Patent Owner has not shown that the aesthetic appeal of Venrick's shingle equates to a "principle of operation," as opposed to merely one of several objectives of the invention. Ex. 1013, 1:1:22–46. Venrick's shingle with a raised strip "operates" as a shingle—i.e., it protects from the

elements a roof on which it is installed—just as the asserted combination of features from Frankoski or Kiik and Venrick does. Further, not every embodiment in Venrick clearly achieves this aesthetic objective.

While Venrick discloses an embodiment in which a raised strip is on the surface of the shingle, creating “a better shadow line,” which gives the roof “a substantial appearance and which will be characterized by individuality and distinctiveness,” (Ex. 1013, 2:2:52–59) another embodiment of Venrick places the raised strip “on the undersurface of the shingle” (*id.* at 2:2:60–62) where it functions to reinforce the shingle and strengthen the tabs (*id.* at 3:1:1–6), but where the resulting shadow line, to the extent it differs from that created by traditional shingles, “wouldn’t be as distinct” as that created when the raised strip is on the top of the shingle. Ex. 1046, 288:6–8. As noted above, Venrick does not require any minimum thickness for the raised strip (Ex. 1013, 2:1:59–61), suggesting that a raised strip placed on the undersurface of the shingle may, or may not, alter the appearance of the roof. Because this embodiment of the Venrick shingle may offer little, if any aesthetic difference, we are not convinced that aesthetic appeal amounts to a “principle of operation” which must not be contravened by any asserted combination.

Moreover, a combination of references may be obvious even if the combination eliminates a benefit of one of the references. In *In re Urbanski*, 809 F.3d 1237 (Fed. Cir. 2016), the Federal Circuit affirmed the Board’s determination that one of ordinary skill would have reason to combine two references having benefits that were “mutually exclusive,” because a skilled artisan may seek the benefit of one of the references at the expense of the other reference’s benefit. *Id.* at 1242. Here, too, one of ordinary skill would

have proceeded with the combination of Venrick and Frankoski or Kiik to achieve the reinforcement benefit, plus the weight savings, even at the expense of Venrick's aesthetic benefit.⁶ As for Patent Owner's arguments concerning the problem of water seepage (PO Resp. 38–40), Patent Owner's declarant, Mr. Metz, testified that the use of sealant strips effectively addressed this problem. *See* Ex. 1046, 325:5–326:9.

(iv) *Adding to, Rather than Replacing,
Venrick's Raised Strip*

Patent Owner also argues that even if a person of ordinary skill in the art would have been motivated to combine Venrick and Frankoski or Kiik, that person “would simply use either the internal scrim of Frankoski [] or the backing of Kiik [] in conjunction with the ‘raised strip’ material of Venrick [] rather than in place of it,” and suggests that removing material from Venrick “would actually weaken the shingle beyond what it would be if the scrim or backing were merely added.” PO Resp. 40–44.

We do not find this argument persuasive. First, the claims do not necessarily exclude a shingle having both the thick raised strip and a thin reinforcement layer. For example, claim 1 uses the transition word “comprising,” which is considered an “open” transition that may permit additional unrecited elements. *AFG Indus., Inc. v. Cardinal IG Co.*, 239 F.3d 1239, 1244–45 (Fed. Cir. 2001). Second, as discussed above, a person of ordinary skill in the art would have been motivated to replace Venrick's

⁶ We note, too, that the art taught other ways of achieving the appearance of thickness in a finished roof that did not require a thick raised strip. *See* Ex. 2013, 2:9–14 (discussing laminated roofing shingles that “create the illusion of thickness or depth on a relatively flat surface by including a backer strip having striations of color beneath and between tabs wherein the color is uniform within the tab”).

raised strip, rather than add to it, to save weight. Finally, we are not convinced that merely because there are other ways in which the teachings of the asserted references *could have been* combined, Petitioner's asserted combination is improper, particularly given the variety of considerations that may favor one combination of features over the other under differing circumstances. *See ACCO Brands Corp. v. Fellowes, Inc.*, No. 2015-1045, 2016 WL 692471, at *5 (Fed. Cir. Feb. 22, 2016) (holding that the existence of an obvious combination that falls outside the scope of a claim does not negate the existence of an obvious combination that falls within the scope of the claim).

(v) *Laminated Shingle Claims*

With regard to claims that require a laminated shingle, such as claims 3–5, 13, 17, and 18, Petitioner asserts:

two-ply laminated shingles (which have “two layers of shingle material laminated together, with the front and rear surfaces being on opposite sides of the shingle”) were well known in the art. Ex. 1003 (Bryson Decl.), at ¶¶ 46, 51–52; *see, e.g.*, Ex. 1005 (Cash 1995), at 4, Fig. 12; Ex. 1011 (Malarkey 2000). The person of ordinary skill would understand that the reinforcing layer disclosed in Venrick [] would have applicability and the same beneficial results when used in all types of shingles, including the most common types of shingles such as laminated shingles. Ex. 1003 (Bryson Decl.), at ¶ 888.

Pet. 45–46; *see also* Pet. 54–55, Ex. 1003 ¶ 50–51, 924. Patent Owner argues that Petitioner fails to provide a reasonable basis for replacing the organic shingle of Venrick with a laminated shingle, as disclosed by Frankoski and Kiik. PO Resp. 45–47. We understand Petitioner's contention not to be that an organic shingle is replaced with a laminated shingle, but that the teachings of Venrick and Frankoski or Kiik are applicable to both organic shingles and

laminated shingles, which were known in the art. Venrick teaches a raised median strip, adhered to an exterior surface of a conventional shingle, and that “various other forms of the device will of course be apparent to those skilled in the art without departing from the spirit of the invention.” Ex. 1013, 3:1:59–62. As Petitioner also points out, both declarants agree that “various other forms of the device” would have included other types of shingles at the time of the invention. Reply 24 (citing Ex. 1048, 430:20–431:7; Ex. 1046, 314:17–315:4; Ex. 2010, 201:10–204:2). Patent Owner’s argument fails to address what the references disclose in combination, and is therefore not persuasive.

After considering the Petition, Patent Owner Response, Reply, and all evidence relied on by Petitioner and Patent Owner, we are persuaded that Petitioner has shown by a preponderance of the evidence that the combination of Venrick and Frankoski meets all of the limitations of claims 1–18, that the combination of Venrick and Kiik meets all of the limitations of claims 1–18, and that a person of ordinary skill in the art would have had a reason to combine Venrick with either Frankoski or Kiik.

4. *Secondary Considerations of Nonobviousness*

Patent Owner argues that objective indicia compel a conclusion of non-obviousness. PO Resp. 48–58. We, therefore, consider this evidence along with the contentions of the parties in reaching our final determination as to the obviousness of claims 1–18.

Objective indicia of nonobviousness may include any of the following: long-felt but unsolved needs, failure of others, unexpected results, commercial success, copying, licensing, and praise. *Graham*, 383 U.S. at 17. Patent Owner argues that the commercial success of Petitioner’s products and

praise of Petitioner's products from others demonstrate the non-obviousness of its claimed invention. PO Resp. 48–58. Patent Owner indicates in passing that copying and long-felt need were also present, but presents no substantive evidence to that effect. PO Resp. 54; Reply 24; Tr. 33:19–20, 62:10–20.

It is not sufficient that a product or its use merely be within the scope of a claim in order for secondary evidence of non-obviousness tied to that product to be given substantial weight. There must also be a causal relationship, termed a “nexus,” between the evidence and the claimed invention. *Merck & Co. v. Teva Pharms. USA, Inc.*, 395 F.3d 1364, 1376 (Fed. Cir. 2005). A nexus is required in order to establish that the evidence relied upon traces its basis to a novel element in the claim, not to something in the prior art. *Institut Pasteur & Universite Pierre et Marie Curie v. Focarino*, 738 F.3d 1337, 1347 (Fed. Cir. 2013). Objective evidence that results from something that is not “both claimed and *novel* in the claim,” lacks a nexus to the merits of the invention. *In re Kao*, 639 F.3d 1057, 1068 (Fed. Cir. 2011). All types of objective evidence of non-obviousness must be shown to have such a nexus. *In re GPAC Inc.*, 57 F.3d 1573, 1580 (Fed. Cir. 1995) (nexus generally); *see also In re Huang*, 100 F.3d 135, 140 (Fed. Cir. 1996) (commercial success). The stronger the showing of nexus, the greater the weight accorded the objective evidence of non-obviousness. *See Ashland Oil, Inc. v. Delta Resins & Refractories, Inc.*, 776 F.2d 281, 306 (Fed. Cir. 1985).

Patent Owner argues that the commercial success and praise of Petitioner's TruDefinition® Duration Series Shingles with SureNail® Technology and TruDefinition® Duration STORM® Impact-Resistant Shingles with SureNail® and WeatherGuard® Technology (“Duration

Shingles”) “demonstrate the non-obviousness of the claims of the ’968 Patent because the Duration Shingles actually embody the claims of the ’968 Patent.” PO Resp. 50. Patent Owner relies on testimony from Robert E. Gardner, its Vice President of Marketing, to illustrate how the Duration Shingles embody at least independent claim 1 of the ’968 patent. *Id.* at 51–52; Tr. 61:17–62:7.

(a) *Commercial Success*

Evidence of commercial success “is only significant if there is a nexus between the claimed invention and the commercial success.” *Ormco Corp. v. Align Tech., Inc.*, 463 F.3d 1299, 1311–12 (Fed. Cir. 2006). To establish a proper nexus between a claimed invention and the commercial success of a product, a patent owner must offer “proof that the sales [of the allegedly successful product] were a direct result of the unique characteristics of the claimed invention—as opposed to other economic and commercial factors unrelated to the quality of the patented subject matter.” *Huang*, 100 F.3d at 140.

Patent Owner argues that Petitioner’s Duration Shingles were an instant market success due to the inclusion of the SureNail® strip. PO Resp. 53. As evidence of market share, Patent Owner states that Petitioner went from a 5.9% share of the residential roofing market in 2007, when it introduced the Duration Shingles, to a 9.3% share in 2009. *Id.*; Tr. 58:13–22. Patent Owner stresses that Petitioner “has made it clear with its marketing materials and pricing strategy that the value of the Duration Shingles is in the SureNail® reinforcement strip itself.” PO Resp. at 55.

Petitioner responds that “Patent Owner has failed to establish a nexus between Petitioner’s products and the claimed subject matter.” Reply 21.

Specifically, Petitioner relies on the technical experts' testimony that the '968 patent requires that the thin reinforcing material must be adhered to the outer surface of the shingle to argue that Petitioner's products do not meet each element of the claims. *Id.* (citing Ex. 1046, 191:20–193:20, 207:6–208:19; Ex. 1003 ¶ 149-51). Petitioner further argues that numerous manufacturers, not just Petitioner, saw an increase in market share during the time period considered by Mr. Gardiner, and that the data does not indicate any specific bases for such increase. *Id.* at 22. Petitioner also argues that no novel aspect of the claimed subject matter drove the alleged commercial success, stating that Mr. Gardiner pointed to factors such as nail zone visibility, improved nail pull strength, and improved wind resistance, which all are features provided by Venrick's raised strip. *Id.* at 23.

The evidence provided by Patent Owner does not demonstrate commercial success that can be attributed to the claimed subject matter. Patent Owner focuses on the commercial success of the Duration Shingles, which, according to Patent Owner, embody at least independent claim 1 of the '968 patent. PO Resp. 50–52. Assuming, *arguendo*, that Duration Shingles embody the claimed invention, we are not persuaded that any commercial success attributable to the Duration Shingles resulted from novel, non-obvious features of the claimed invention, rather than other features. If commercial success is due to an element in the prior art, no nexus exists. *Tokai Corp. v. Easton Enter., Inc.*, 632 F.3d 1358, 1369 (Fed. Cir. 2011). Mr. Gardiner “pointed to factors such as nail zone visibility, improved nail pull strength, and improved wind resistance as drivers of success.” Reply 23 (citing Ex. 1048, 236:20–238:16, 68:8–15). But, as Petitioner argues, these features are arguably provided by Venrick's raised strip. *Id.* Further,

Petitioner points out that its “SureNail® Technology . . . encompasses a number of unclaimed features, such as a specially formulated adhesive sealant called Tru-Bond®,” which may explain, at least in part, any commercial success. Reply 23 (citing Ex. 1049, 157:6–159:8, 172:3–20). Accordingly, because any commercial success may be attributable, at least in part, to unclaimed features or features known in the prior art, Patent Owner has not established a nexus between any commercial success and the claimed invention of the ’968 patent.

(b) Praise

Patent Owner argues that praise of the Duration Shingles and the SureNail strip is objective indicia of non-obviousness independent of commercial success. PO Resp. 56–58. Patent Owner refers to Petitioner’s seven-minute-long promotional video featuring contractor praise and testimonial, “promoting the SureNail® strip apart from any particular product.” *Id.* at 56–57 (citing Ex. 2018). Patent Owner also relies on Petitioner’s Duration Shingles brochure, in which “contractors describe the claimed reinforcement layer in glowing terms,” as evidence of praise. *Id.* at 58 (citing Ex. 2003). Petitioner argues that Patent Owner’s assertions of praise fail for the same reasons as Patent Owner’s commercial success arguments. Reply 23 n.13.

As with commercial success, evidence of industry praise is only relevant when it is directed to the merits of the invention claimed. *See Ormco Corp.*, 463 F.3d at 1311–12. Petitioner argues that “SureNail Technology” is a marketing term that is sometimes used to identify the SureNail strip and other times used to identify, generally, the strip along with the bonding layer and the overall configuration of the shingle. Reply 23; Ex.

2003, 3; Tr. 76:4–18 (referring to Tru-Bond sealant and an additional strip of adhesive as part of SureNail Technology). Thus, when Patent Owner uses the term “SureNail Technology” in discussing the probative worth of Petitioner’s marketing materials, we are unable to associate Patent Owner’s objective evidence with particular features of the product. Accordingly, Patent Owner’s general identification of “SureNail Technology” as embodying the claims of the ’968 patent is insufficient to show nexus.

Moreover, the individuals featured in the video or the brochure alternately praise the overall shingle, features of the shingle, and the performance of the shingle. The praise is not specific to the SureNail strip, as Patent Owner urges. Accordingly, we do not find that the proffered evidence of praise supports Patent Owner’s argument of non-obviousness.

C. Conclusion

For the foregoing reasons, after considering the Petition, Patent Owner Response, Reply, and all evidence relied upon by Petitioner and Patent Owner, including evidence of secondary considerations, we are persuaded that Petitioner has shown by a preponderance of the evidence that claims 1–18 would have been obvious over Venrick and Frankoski, and Venrick and Kiik.

IV. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that claims 1–18 of the ’968 patent are held unpatentable; and

FURTHER ORDERED that because this is a final written decision, parties to the proceeding seeking judicial review of the decision must comply with the notice and service requirements of 37 C.F.R. § 90.2.

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Patent 8,615,968 B2

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