Global IP Holdings, LLC appeals the Patent Trial and Appeal Board’s decision affirming the examiner’s rejection of its reissue claims for failure to comply with the written description requirement. Because the legal standard applied by the Board conflicts with our precedent, we vacate
the Board’s decision and remand for further proceedings consistent with this opinion.

BACKGROUND

Global owns U.S. Patent No. 8,690,233, which claims carpeted automotive vehicle load floors having sandwich-type composite panels with cellular cores. In one embodiment, the load floor refers to the back-side of a car seat, which operates as the trunk floor when folded down. See ’233 patent, Fig. 5. Figure 6 of the ’233 patent shows the composition of the claimed load floor:

The specification discloses that hinged panel 10 is typically manufactured from a stack of material including “first and second reinforced thermoplastic skins 16 and 18, respectively, a thermoplastic cellular core 20 disposed between the skins 16 and 18 and a top layer of a substantially continuous covering layer generally indicated at 21.” Id. at col. 4 ll. 35–42.

Global filed a reissue application, seeking to broaden its claims in the ’233 patent. In particular, it replaced the term “thermoplastic” with “plastic” in independent claims
Global’s reissue claim 1 is representative and reproduced below, with strikeouts indicating the deletions made to the original claim:

1. A carpeted automotive vehicle load floor comprising:

- A composite panel having first and second reinforced thermoplastic skins and a thermoplastic cellular core disposed between and bonded to the skins, the first skin having a top surface;
- A cover having top and bottom surfaces and spaced apart from the composite panel; and
- A substantially continuous top covering layer bonded to the top surface of the panel and the top surface of the cover to at least partially form a carpeted load floor having a carpeted cover, wherein an intermediate portion of the top covering layer between the cover and the panel is not bonded to either the panel or the cover to form a living hinge which allows the carpeted cover to pivot between different use positions relative to the rest of the load floor.

J.A. 40.

The Patent Office’s rules for reissue applications require an inventor oath or declaration specifically identifying the error relied on as the basis for the reissue. 37 C.F.R. § 1.175. Here, inventor Darius J. Preisler filed a declaration explaining that he is the inventor of over fifty U.S. patents in the field of plastic-molded products and that, at the time of the invention, he was aware of the use of plastics other than thermoplastics for the formation of a sandwich-type composite panel with a cellular core. See J.A. 213–20 ¶¶ 5–26. He also cited patents and patent applications, including his own, as well as technical papers purportedly disclosing the use of thermoset plastics.

The examiner rejected Global’s reissue claims 1–21 for failing to comply with the written description requirement of 35 U.S.C. § 112, first paragraph. See J.A. 366–67. The examiner noted that “the specification indicates that the first and second skins and core are only described as being formed from thermoplastic materials and are not described as being formed generally from plastic materials.” J.A. 367 (citing ’233 patent col. 1 ll. 25–28, col. 2 ll. 30–32, 59–60, col. 3 ll. 3–6, 28–29, col. 4 ll. 35–40, 42–45, col. 5 ll. 9–14, 19–21, 37–39). After finding that “the specification only supports thermoplastics,” the examiner determined that Global “cannot claim the full range of plastics, which would include thermosetting as well as thermoplastics.” Id. According to the examiner, by changing the term “thermoplastic” to “plastic,” Global introduced new matter. See id.

The Board affirmed the examiner’s rejection of reissue claims 1–21 under § 112, first paragraph. Ex Parte Preisler, No. 2018-000871, 2017 WL 6882664, at *1 (P.T.A.B. Dec. 29, 2017) (“Decision”). Global argued before the Board that, because the type of plastic used is not critical to the invention and plastics other than thermoplastics were predictable options, the disclosure of thermoplastics (species) supports the claiming of plastics (genus). See id. at *2–3. Global also cited the inventor declaration, see id. at *2, which explained that multiple types of plastics other than thermoplastics were known for use in automotive load floors and that the specific type of plastic from which the skins and core of the panels are fabricated is not critical to the claimed invention. See J.A. 217–20 ¶¶ 15, 21, 24–26, 28. The Board rejected Global’s arguments. It agreed with the examiner that the specification only describes the skins and core of the claimed load floor as being formed from thermoplastic materials. See Decision, 2017 WL 6882664, at *3. The Board explained that “regardless of the predictability of results of substituting alternatives, or the actual
criticality of thermoplastics in the overall invention, [Global’s] Specification, as a whole, indicates to one skilled in the art that the inventors had possession only of the skins and core comprising specifically thermoplastic.” *Id.*

Global appeals the Board’s decision. We have jurisdiction pursuant to 28 U.S.C. § 1295(a)(4)(A).

**DISCUSSION**

We review the Board’s legal conclusions de novo and its fact findings for substantial evidence. *Belden Inc. v. BerkTek LLC*, 805 F.3d 1064, 1073 (Fed. Cir. 2015). A finding is supported by substantial evidence if a reasonable mind might accept the evidence as sufficient to support the finding. *See Consol. Edison Co. v. NLRB*, 305 U.S. 197, 229 (1938).

Section 112 of the patent statute provides in relevant part:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same . . . .

35 U.S.C. § 112, ¶ 1 (2006).1 This written description requirement is met when the specification clearly allows

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1 Paragraph 1 of 35 U.S.C. § 112 was replaced with newly designated § 112(a) by section 4(c) of the Leahy-Smith America Invents Act (“AIA”), Pub. L. No. 112–29, sec. 4(c), 125 Stat. 284, 296 (2011). Section 4(e) of the AIA applied that change “to any patent application that is filed on or after” September 16, 2012. *Id.* sec. 4(e), 125 Stat. at 297. Because the application resulting in the ’233 patent
persons of ordinary skill to recognize that the inventor “invented what is claimed.” *Ariad Pharm., Inc. v. Eli Lily & Co.*, 598 F.3d 1336, 1351 (Fed. Cir. 2010) (en banc) (quoting *Vas–Cath Inc. v. Mahurkar*, 935 F.2d 1555, 1563 (Fed. Cir. 1991)). In other words, the test for sufficiency is whether the specification “reasonably conveys to those skilled in the art that the inventor had possession of the claimed subject matter as of the filing date.” *Id.* This test involves an inquiry into the four corners of the specification from the perspective of a person of ordinary skill. *Id.* Determining whether a patent complies with the written description requirement is a question of fact that necessarily varies depending on the context. *Id.* “[T]he level of detail required to satisfy the written description requirement varies depending on the nature and scope of the claims and on the complexity and predictability of the relevant technology.” *Id.*

We hold that the Board legally erred in its analysis of whether the ’233 patent complies with the written description requirement under § 112, first paragraph. The Board found that the ’233 patent’s specification was insufficient “regardless of the predictability of results of substituting alternatives, or the actual criticality of thermoplastics in the overall invention.” *Decision*, 2017 WL 6882664, at *3 (emphasis added). This statement conflicts with *Ariad*, which instructs that “the level of detail required to satisfy the written description requirement varies depending on the nature and scope of the claims and on the complexity and predictability of the relevant technology.” 598 F.3d at 1351 (emphasis added). Contrary to the Board’s statement, the predictability of substituting generic plastics for thermoplastics in the skins and cellular cores of vehicle load floors is relevant to the written description inquiry.

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was filed before that date, we refer to the pre-AIA version of § 112.
In addition to predictability, we have held that the criticality or importance of an unclaimed limitation to the invention can be relevant to the written description inquiry. See In re Peters, 723 F.2d 891, 893–94 (Fed. Cir. 1983). In Peters, the original claims required, among other things, a metal tip having a tapered shape. Id. at 892. The patent owner filed a reissue application seeking to broaden the claims to cover both tapered and non-tapered tips. Id. The Board held that the broadened claims sought by the reissue application were not supported by the original disclosure because the only tips disclosed were tapered. Id. at 893. We disagreed, holding that “[t]he broadened claims merely omit an unnecessary limitation that had restricted one element of the invention to the exact and non-critical shape disclosed in the original patent.” Id. We reasoned that the disclosed tip configuration was not critical because no prior art was overcome based on the tip shape and “one skilled in the art would readily understand that in practicing the invention it is unimportant whether the tips are tapered.” Id.

We see nothing in Ariad rejecting the analysis in Peters. In Ariad, we identified a number of factors that bear on whether a written description disclosing a species supports generic claims, including “the existing knowledge in a particular field, the extent and content of the prior art, the maturity of the science or technology, [and] the predictability of the aspect at issue.” Ariad, 598 F.3d at 1351 (quoting Capon v. Eshhar, 418 F.3d 1349, 1359 (Fed. Cir. 2005)). Ariad did not present an exhaustive list of relevant factors, and we hold that, in some cases, the criticality or importance of the expressly disclosed species may be relevant to whether an inventor had possession of a claimed genus.

Global requests that we reverse, arguing that “there is no evidence in the record to support any finding that the ‘plastic’ limitation is critical.” Appellant Br. 12. We decline to decide this factual question in the first instance.
We thus vacate the Board's decision. On remand, the Board should address the relevant factors, including predictability and criticality, based on the record evidence and determine whether the written description requirement has been satisfied under the proper legal standard.

**VACATED AND REMANDED**

**COSTS**

Costs to Appellant.