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Implied Warranties v. Express Specifications Under the Uniform Commercial Code

David S. Coale

Michael P. Lynn

IMPLIED WARRANTIES V. EXPRESS SPECIFICATIONS UNDER THE UNIFORM COMMERCIAL CODE

DAVID S. COALE & MICHAEL P. LYNN*

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Introduction

Aluminum windows start to bend and crack. Bottles of nutritional supplements bulge and leak. Amplifiers sputter with static. When crises like these arise, lawyers race to their clients' contracts to determine legal responsibility. And once they find a set of specifications, such as a list of performance requirements or design instructions, those lawyers may—for a moment—think they have found the answer.

Under the present case law, however, those lawyers may have just begun their search. The key parts of the Uniform Commercial Code ("UCC") pit two basic contract law principles against one another without a clear answer as to which controls.

On the one hand, the UCC implies two basic warranties into every contract for the sale of goods—that the goods will be "merchantable" and "fit for their particular purpose." These "gap-filler" provisions ensure basic

* The authors are partners in Lynn Pinker Hurst & Schwegmann, LLP, Dallas, Texas. Mr. Lynn, the firm's founder, was lead counsel in *Rmax Operating, LLC v. GAF Materials Corp.*, No. 05-16-00188-CV, 2018 WL 1616356 (Tex. App. Apr. 4, 2018), a case involving the issues discussed later in this Article. Mr. Coale leads the firm's appellate practice and also worked on the *Rmax* case. The authors thank Professor Larry Garvin of the Ohio State University's Moritz College of Law for his valuable assistance in that case on the issues discussed in this Article.

protection from shoddy product and workmanship, even if the parties' contract does not expressly address those matters.

At the same time, the UCC gives priority to express terms that the parties specifically negotiated for their contract. The parties are generally free to disclaim the UCC's implied warranties, as well as to expressly adopt specifications that modify otherwise implied UCC provisions.

In theory, contracts would readily answer a basic question about product quality—either implied warranties would be waived or modified, or they would remain intact. But in the real world of modern markets and supply chains, both technical specifications and product defects take various forms. As a result, many courts have struggled to decide whether express specifications control over implied warranties.

This Article surveys the main cases on this issue and explains how they have developed two distinct analytical frameworks. The first framework asks whether the parties' express specifications are "precise and complete," while the second framework focuses on whether the specifications affirmatively require the alleged defect. The Article concludes that the second framework does not work well with the many kinds of specifications (design, testing, performance, etc.) used in today's complex economy and recommends that courts use only the first approach. The last part of the Article reviews specific legal concepts and facts that the cases have emphasized in their application of the first approach.

I. Two UCC Provisions Control

Two parts of the UCC state the basic principles of implied warranties and the exclusion or modification of warranties. The first part defines the scope of implied warranties. Section 2-314 defines the implied warranty of merchantability:

> (1) Unless excluded or modified (Section 2-316), a warranty that the goods shall be merchantable is implied in a contract for their sale if the seller is a merchant[1] with respect to goods of that kind . . . .

1. Section 2-104(1) of the UCC defines "merchant" as
> a person who deals in goods of the kind or otherwise by his occupation holds himself out as having knowledge or skill peculiar to the practices or goods involved in the transaction or to whom such knowledge or skill may be attributed by his employment of an agent or broker or other intermediary who by his occupation holds himself out as having such knowledge or skill.

U.C.C. § 2-104(1) (AM. L. INST. & UNIF. L. COMM'N 1951).

> (2) Goods to be merchantable must be at least such as
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> (a) pass without objection in the trade under the contract description; and
>
> (b) in the case of fungible goods, are of fair average quality within the description; and
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> (c) are fit for the ordinary purposes for which such goods are used; and
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> (d) run, within the variations permitted by the agreement, of even kind, quality and quantity within each unit and among all units involved; and
>
> (e) are adequately contained, packaged, and labeled as the agreement may require; and
>
> (f) conform to the promise or affirmations of fact made on the container or label if any.[2]

In subpart (3), this section concludes: "Unless excluded or modified (Section 2-316) other implied warranties may arise from course of dealing or usage of trade."[3]

Similarly, section 2-315 defines the implied warranty of fitness for a particular purpose:

> Where the seller at the time of contracting has reason to know any particular purpose for which the goods are required and that the buyer is relying on the seller's skill or judgment to select or furnish suitable goods, there is unless excluded or modified under [Section 2-316] an implied warranty that the goods shall be fit for such purpose.[4]

These provisions are often called "gap-fillers"[5]—default provisions that provide a solution for a potential problem, even though the parties' agreement does not expressly address such a point.

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2. *Id.* § 2-314(1)–(2).
3. *Id.* § 2-314(3).
4. *Id.* § 2-315.
5. *See, e.g.*, Lorin Brennan, *Why Article 2 Cannot Apply to Software Transactions*, 38 DUQ. L. REV. 459, 470 (2000) (describing how the UCC "set[s] up what are variously called 'gap-fillers' or 'default rules' that supply necessary contract terms where parties have not done so adequately"). *See generally* Ian Ayres & Robert Gertner, *Filling Gaps in Incomplete*

The second relevant UCC section, referred to by both definitions above, is section 2-316, titled "Exclusion or Modification of Warranties." Comment 9 to that section specifically addresses product specifications:

> The situation in which the buyer gives precise and complete specifications to the seller is not explicitly covered in this section, *but this is a frequent circumstance by which the implied warranties may be excluded*. The warranty of fitness for a particular purpose would not normally arise since in such a situation there is usually no reliance on the seller by the buyer. The warranty of merchantability in such a transaction, however, must be considered in connection with the next section on the cumulation and conflict of warranties. Under paragraph (c) of that section in case of such an inconsistency the implied warranty of merchantability is displaced by the express warranty that the goods will comply with the specifications. Thus, *where the buyer gives detailed specifications as to the goods, neither of the implied warranties as to quality will normally apply* to the transaction unless consistent with the specifications.[6]

This provision flows from the general idea—in contract law and many other areas of law—that specific terms control over general ones.[7] And in the context of the implied warranty of merchantability, the concept is reinforced by its definition in section 2-314, which refers to "the contract description," "quality within the description," "variations permitted by the agreement," and what "the agreement may require" as to how goods are "contained, packaged, and labeled."[8] Each of those references involves a topic where the parties negotiated and agreed upon a contract-specific term.

II. Two Lines of Cases Apply the UCC Provisions

Courts have developed two lines of authority about how these UCC provisions interact. One emphasizes the scope of the product specifications provided by the buyer. The other focuses on whether the specifications

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Contracts: An Economic Theory of Default Rules, 99 YALE L.J. 87 (1989) (reviewing the theoretical foundations for different types of legally imposed default terms).

6. U.C.C. § 2-316 cmt. 9 (emphasis added).

7. *See, e.g.*, Horizon/CMS Healthcare Corp. v. Auld, 34 S.W.3d 887, 901 (Tex. 2000) (considering statutes); Forbau v. Aetna Life Ins. Co., 876 S.W.2d 132, 133–34 (Tex. 1994) (considering contracts); Monsanto Co. v. Milam, 494 S.W.2d 534, 536 (Tex. 1973) (considering pleadings).

8. U.C.C. § 2-314(2)(a)–(b), (d)–(e).

caused the problem that led to the plaintiff's claim. This section reviews the development of each approach.

A. "Are the Specifications 'Precise and Complete'?"

The first widely cited case is *Rust Engineering Co. v. Lawrence Pumps, Inc*.[9] This case involved pumps used by a smelting plant to convert sulfur dioxide, an unwanted byproduct of the smelting process, into sulfuric acid, a marketable product.[10] The plaintiff alleged that the pumps wore out too quickly in the smelting plant's demanding environment.[11]

The seller defended itself by pointing to the buyer's specifications for the product, arguing that it had done exactly what the buyer had asked it to do.[12] The court agreed, holding that the buyer's specifications left the defendant "no room for the exercise of its discretion or differing engineering opinion or expertise as to the appropriate type of material and method to be used in the construction of [the] pumps."[13] In other words, "had [the defendant] deviated from the specifications it would have exposed itself to liability for breach of contract."[14]

Accordingly, "this obligation to follow specifications in order to comply with the contract eliminated any freedom to apply its own expertise or independent judgment that might have otherwise been available to defendant."[15] The court further found that the plaintiff did not rely on the defendant's alleged expertise in this "novel" environment for its pumps.[16] Based on proof of compliance with the specifications, the court ruled for the defendant.[17]

Another early analysis of the issue appeared in *Mohasco Industries, Inc. v. Anderson Halverson Corp*., which arose after the owners of Las Vegas's Stardust Hotel bought carpet for the hotel lobby and casino showroom.[18] Evidence showed that the hotel "issued a detailed purchase order designating the type and length of yarn, weight per square yard, type of weave, color and pattern," and "[t]he carpet which was manufactured,

9. Rust Eng'g Co. v. Lawrence Pumps, Inc., 401 F. Supp. 328 (D. Mass. 1975).
10. *Id.* at 329–30.
11. *Id.* at 331.
12. *Id.* at 332.
13. *Id.*
14. *Id.*
15. *Id.*
16. *Id.* at 332–33.
17. *Id.* at 335.
18. Mohasco Indus., Inc. v. Anderson Halverson Corp., 520 P.2d 234, 234 (Nev. 1974).

delivered and installed was consistent with the sample."[19] The dispute began when the carpet sustained excessive color variation over time.[20]

The Nevada Supreme Court found that "[t]he only explanation in the record" for the color problem was that "the decorator for Stardust[] decided not to specify the more expensive 'twist yarn'" that would have avoided the problem.[21] Accordingly, the court rendered judgment for the defendant seller, as "[t]he installed carpet conformed precisely to the description of the goods contained in the purchase order. [M]oreover, it conformed precisely to the sample which the buyer approved."[22] The court observed that "[t]he manufacturer-seller was not at liberty to add 'twist yarn' and charge a higher price."[23]

While *Rust* and *Mohasco* involved design specifications about the creation of sulfur pumps and carpet, *Marvin Lumber & Cedar Co. v. Sapa Extrusions, Inc.* extended their reasoning to testing specifications.[24] The plaintiff alleged defects in the defendants' "lineals"—parts used to make aluminum-clad windows and doors.[25] The District of Minnesota began by describing the legal significance of the parties' specifications:

> In situations "where the buyer has taken upon himself the responsibility of furnishing the technical specifications, . . . the buyer is not relying on the seller's skill and judgment." *If* the seller produces goods that conform to the specifications but are nonetheless defective, presumably the buyer's specifications are at fault, not the seller's skill or judgment. To avoid holding the seller liable under such circumstances, many courts hold that no implied warranties arise.[26]

Based on that observation, and noting the scope of the parties' specifications, the court granted summary judgment to the defendant seller:

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19. *Id.* at 234–35.

20. *Id.* at 235.

21. *Id.*

22. *Id.*

23. *Id.* at 236 (referencing Home Furniture, Inc. v. Brunzell Constr. Co., 440 P.2d 398 (Nev. 1968)). A similar case, *Cumberland Farms, Inc. v. Drehmann Paving & Flooring Co.*, will be taken up in Section II.B in the context of a later decision that limited and distinguished it.

24. Marvin Lumber & Cedar Co. v. Sapa Extrusions, Inc., 964 F. Supp. 2d 993 (D. Minn. 2013).

25. *Id.* at 996–97.

26. *Id.* at 1006 (emphasis added) (citation omitted).

> In this case, Marvin provided Sapa detailed specifications covering the pretreatment, coating, and testing of its lineals instead of having Sapa choose what the best specifications would be for their use in Marvin's windows and doors. . . . The decision to utilize the AAMA 2605 specifications, for example, was—at least in part—a collaborative effort among Marvin, Sapa, and Valspar. But in the end, the decision to provide specifications to Sapa (and which ones) rested with Marvin alone. Marvin may pursue a breach of warranty [claim] for Sapa's alleged failure to meet its specifications, but *its decision to provide those specifications precludes any implied warranties that might have otherwise arisen between the parties*.[27]

Those specifications appeared to cover all the matters that led to the alleged problems with the lineals, including how to make them (pretreatment and coating) and the testing to be used.

Similarly, in *Air Techniques., Inc. v. Calgon Carbon Corp.*, the court noted there was "no evidence the carbon was not fit for the ordinary purpose of filtering certain toxic chemicals."[28] It also found no role for implied warranties when "[the buyer] intended to purchase one grade of carbon, so long as it passed the named specifications," which identified the relevant test by a specific military specification number.[29]

Another example appeared in *Momax, LLC v. Rockland Corp.*, where the plaintiff alleged a breach of the implied warranty of merchantability regarding "Beautiful Body," a weight loss product whose bottles "beg[a]n to bulge, leak, wobble and explode while on warehouse and retailer's shelves."[30] The court denied summary judgment to the plaintiff, citing statutory language identical to the above language from Comment 9[31] and noting a fact issue as to "whether Momax provided . . . specifications for manufacturing [Beautiful] Body."[32] At trial, the jury charge addressed that issue as part of the instruction about both of the plaintiff's implied warranty claims:

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27. *Id.* (emphasis added).

28. Air Techs., Inc. v. Calgon Carbon Corp., No. 93-1412, 1995 WL 29018, at *3 (4th Cir. Jan. 26, 1995).

29. *Id.* at *4.

30. Momax, LLC v. Rockland Corp., No. 3:02-CV-2613-L, 2005 WL 839402, at *2 (N.D. Tex. Apr. 11, 2005).

31. TEX. BUS. & COM. CODE ANN. § 2.314 (West 1967) (using statutory language identical to U.C.C. § 2-316, Comment 9, as quoted above and supported by footnote 6).

32. *Momax*, 2005 WL 839402, at *5.

> A product which performs its ordinary function adequately does not breach the implied warranty of merchantability merely because it does not function as well as the buyer would like, or even as well as it could. By the same token, if you find that Momax provided Rockland with complete and detailed specifications as to Beautiful Body, you may find that no implied warranty arose; however, whether Momax provided [Rockland with] such specifications is a question of fact that you must necessarily decide.[33]

The jury found Rockland liable, and the court entered judgment for nearly $4,000,000.[34] The Fifth Circuit affirmed on other grounds.[35]

Like the earlier cases in this line of authority, the district court in *Momax* recognized that comprehensive specifications could resolve this kind of warranty dispute. Unlike those cases, however, the *Momax* court treated the issue as a question of fact rather than one of law.[36]

The most recent case in this line is *Baker Hughes Process & Pipeline v. UE Compression*.[37] The Fifth Circuit found that the parties had complete specifications when their agreement "included 18 single-space pages of Baker Hughes's Specification and a 21-page responsive set of specifications comprising UE's Quote."[38] Moreover, "[o]ther contractual provisions . . . confirm[ed] Baker Hughes's ultimate responsibility for the design, its duty to supply technical information, its ability to modify specs during the fabrication, and its right to approve any drawings or specifications prepared by UE."[39] The court considered whether the expressly stated specifications were merely "cumulative" of the implied warranties under language identical to UCC section 2-317[40] (in particular,

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33. Court's Charge to the Jury at 16, Momax, LLC v. Rockland Corp., 2005 WL 839402 (N.D. Tex. Apr. 11, 2005) (No. 3:02-CV-2613-L), ECF No. 120; *see also id.* at 18.

34. Judgment, Momax, LLC v. Rockland Corp., 2005 WL 839402 (N.D. Tex. Apr. 11, 2005) (No. 3:02-CV-2613-L), ECF No. 121.

35. Momax, LLC v. Rockland Corp., 223 F. App'x 334, 334 (5th Cir. 2007).

36. Court's Charge to the Jury, *supra* note 33, at 16, 18.

37. Baker Hughes Process & Pipeline Servs., L.L.C. v. UE Compression, L.L.C., 938 F.3d 661 (5th Cir. 2019).

38. *Id.* at 670.

39. *Id.* (citing, inter alia, School Supply Serv. Co. v. J.H. Keeney & Co., 410 F.2d 481, 483 (5th Cir. 1969) (noting that under Comment 9, "in order for there to be an implied warranty of the sufficiency of the design, the seller must be responsible for the design") and N.J. Transit Corp. v. Harsco Corp., 497 F.3d 323, 328–30 (3d Cir. 2007)).

40. *Id.* at 671 (quoting TEX. BUS. & COM. CODE ANN. § 2.317 (West 1967), which uses language identical to section 2-317 of the UCC and which says in relevant part: "Warranties

whether the warranties addressed distinct points in time in the production and delivery processes). The court concluded that they were not, given the degree of detail that the specifications provided about the relevant topics.[41]

B. "Did the Specifications Require the Defect?"

The other line of authority focuses on whether the agreed-upon specification affirmatively required the defect that led to the plaintiff's claim. This approach began in 1997 with *Commonwealth v. Johnson Insulation*.[42] The State of Massachusetts sought to recover the costs of asbestos remediation from thermal insulation it purchased; the suppliers argued they only sold products that met the state's specifications.[43] The Massachusetts Supreme Court stated the issue was "not with the design of the Commonwealth's buildings or with its decision to insulate pipes, but with the materials provided by the installer, products that turned out to have undisclosed and nonobvious defects that rendered them unfit for their ordinary purposes."[44] Therefore, it "conclude[d] that an implied warranty of merchantability did exist for the products supplied by Johnson, because the specifications supplied by the Commonwealth were not so detailed, precise, and complete as to exclude that warranty."[45]

Johnson Insulation relied upon, yet limited, an earlier Massachusetts opinion, *Cumberland Farms, Inc. v. Drehmann Paving & Flooring Co.*[46] In *Cumberland Farms*, the defendant installed a brick floor according to the plaintiff-buyer's specifications.[47] The defendant recommended changing the specifications to include expansion joints; the plaintiff refused, and after a few years, the floor was subject to damage that expansion joints could have prevented.[48] *Johnson Insulation* limited that holding, concluding that "the failure of the floor was caused not by the quality of the materials (i.e.,

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whether express or implied shall be construed as consistent with each other and as cumulative, but if such construction is unreasonable the intention of the parties shall determine which warranty is dominant. In ascertaining that intention the following rules apply: . . . (3) Express warranties displace inconsistent implied warranties other than an implied warranty of fitness for a particular purpose.").

41. *Id.* at 671.

42. Commonwealth v. Johnson Insulation, 682 N.E.2d 1323 (Mass. 1997).

43. *Id.* at 1325, 1327.

44. *Id.* at 1329.

45. *Id.* at 1327–28.

46. *Id.* at 1328–29 (considering Cumberland Farms, Inc. v. Drehmann Paving & Flooring Co., 520 N.E.2d 1321 (Mass. App. Ct. 1988)).

47. *See Cumberland Farms*, 520 N.E.2d at 1325.

48. *Id.*

bricks) supplied by the installer, nor by a lack of craftsmanship on its part, but by innate flaws in engineering and design that were wholly attributable to the plaintiff."[49]

Almost simultaneous with *Johnson Insulation*, the Sixth Circuit made a similar statement in *Zeon Chemicals v. CPS Chemical Co.*, which involved the production of "methoxyethyl acrylate" ("MEA"), a chemical compound used in synthetic rubber for Goodrich tires.[50] The specification said that 99.3% of the compound would come from four substances mixed in certain percentages, while the manufacturer left the remaining 0.7% unspecified.[51] The plaintiff won at trial, proving that an impurity in that 0.7% ruined the entire mix.[52]

The Sixth Circuit affirmed, distinguishing the defendants' authorities as "involv[ing] specifications that required the defect to be incorporated into the product,"[53] as opposed to the present situation:

> The FA-1 found in the CPS [sic] is not something that was required as a part of B.F. Goodrich's specifications. CPS could have taken steps to avoid contaminating the MEA without straying from the specifications. It was not faced with the dilemma of either breaching the express warranty of description or the implied warranty of merchantability. Therefore, although the MEA admittedly conformed to the express warranty, the fact that the MEA contained a contaminant known to interfere with the rubber-curing process made it unmerchantable.[54]

While it is far from clear that the *Zeon* court had to distinguish the defendant's authorities on the basis that the specifications required the defect in question, at least one influential commentator has adopted the Sixth Circuit's phrasing of the legal issue,[55] and other courts commonly cite *Zeon*.

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49. *Johnson Insulation*, 682 N.E.2d at 1329.

50. Zeon Chems. USA, Inc. v. CPS Chem. Co., Nos. 96-5668, 96-5723, 1997 WL 659683, at *1 (6th Cir. Oct. 22, 1997).

51. *See id.*

52. *See id.* at *2.

53. *Id.* (considering Rust Eng'g Co. v. Lawrence Pumps, Inc., 401 F. Supp. 328 (D. Mass. 1975); *Cumberland Farms*, 520 N.E.2d 1321; and Mohasco Indus., Inc. v. Anderson Halverson Corp., 520 P.2d 234 (Nev. 1974)).

54. *Id.*

55. 1 JAMES J. WHITE & ROBERT S. SUMMERS, UNIFORM COMMERCIAL CODE § 13-7, at 596 n.1 (6th ed. 2010) ("Where it is the specifications of the buyer that render a product defective, there is no breach of the implied warranty of merchantability.").

A major case that cites *Zeon* is *Scientific Components v. Sirenza Microdevices*, which dealt with "parameters for frequency range and noise" for amplifiers.[56] The plaintiff alleged the amplifiers made too much noise; the defendant attributed the noise to "low-frequency oscillation"—an issue that the specifications did not address.[57] The court found a triable issue of fact as to whether the amplifiers conformed with the specifications, as well as one about the implied warranty of merchantability.[58] "[C]onvinced by the sound reasoning of *Zeon*," the court concluded that "there is at least an issue of fact as to whether [low frequency oscillation] was incorporated into the specifications"[59]—a prerequisite to finding an inconsistency that would displace the implied warranty. In other words, a buyer's control of design specifications could defeat an implied warranty of merchantability.[60]

C. Summary

Courts have developed two ways to address the tension in the UCC between implied warranties and express specifications. The first follows from the reference in Comment 9[61] to "precise and complete" specifications.[62] These cases focus on whether the parties' specifications address the relevant design problem, such as the corroded material in *Rust Engineering*[63] and the inexpensive carpet fiber in *Mohasco*.[64] The second focuses on whether the specifications affirmatively require the defect,[65] such as the asbestos in the insulation in *Commonwealth*.[66]

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56. Sci. Components Corp. v. Sirenza Microdevices, Inc., No. 03-CV-1851(NGG)(RML), 2006 WL 2524187, at *3 (E.D.N.Y. Aug. 30, 2006).

57. *See id.* at *1.

58. *See id.* at *5, *10.

59. *Id.* at *9.

60. *Id.*; *see also* Hatch v. Trail King Indus., Inc., 656 F.3d 59, 63, 70 (1st Cir. 2011) (finding no error from this jury instruction in a products liability case) ("Where a sophisticated purchaser has complete control over a product's specifications and design and itself bears significant responsibility for a resulting design defect, the implied warranty of merchantability does not apply to the fabricator.").

61. U.C.C. § 2-316 cmt. 9.

62. *See supra* Sections II.A–II.B.

63. Rust Eng'g Co. v. Lawrence Pumps, Inc., 401 F. Supp. 328, 331 (D. Mass. 1975).

64. Mohasco Indus., Inc. v. Anderson Halverson Corp., 520 P.2d 234, 234 (Nev. 1974).

65. *See supra* Part III.

66. Commonwealth v. Johnson Insulation, 682 N.E.2d 1323, 1325, 1327 (Mass. 1997).

III. The Problem of Silence

A. The First Approach Handles Silence Better

The first approach asks whether the parties' specifications are "precise and complete," and the cases in this area often arise when a contract is silent on a specific technical issue.[67] Analyzing that silence requires weighing two policy interests. On the one hand, gap-filler provisions, such as implied warranties, are intended to solve the problems created by a contract's silence on a key issue such as product quality.[68] As the Fifth Circuit summarized a related product-liability doctrine, "a manufacturing defect is not necessarily equivalent to nonconformity with government specifications, because those specifications may be silent about some features, making possible the existence of a manufacturing defect in spite of conformity with the specifications."[69]

On the other hand, in the context of customized specifications, the parties' agreement could be undermined by engrafting a general, implied warranty atop the terms specifically negotiated by the parties. Again, the Fifth Circuit summarizes that "silence in the specifications may leave room for design discretion by the manufacturer, making possible the existence of a design defect in spite of conformity with the government specifications."[70] In such a situation, the parties could well have agreed that the buyer would assume that risk in exchange for obtaining a lower price, because the manufacturer was given flexibility as to design.[71]

The first approach, which asks whether the parties' specifications are "precise and complete," offers a constructive way to weigh these interests and analyze contractual silence. Under such an analysis, deliberate silence

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67. *See, e.g.*, Sci. Components Corp. v. Sirenza Microdevices, Inc., No. 03-CV-1851(NGG)(RML), 2006 WL 2524187, at *1 (E.D.N.Y. Aug. 30, 2006) ("The Defendant points out that Judge Levy 'correctly' found that 'nothing in the comprehensive specifications developed for the ERA Amplifiers by Mini-Circuits referenced "unconditional stability" or low frequency oscillation.'").

68. *See* Brennan, *supra* note 5; *see also* Ayres & Gertner, *supra* note 5.

69. Bailey v. McDonnell Douglas Corp., 989 F.2d 794, 801 (5th Cir. 1993).

70. *Id.*

71. *See* Robert C. Illig, *Minority Investor Protections as Default Norms: Using Price to Illuminate the Deal in Close Corporations*, 56 AM. U. L. REV. 275, 366 (2006) ("Price, because it serves as a proxy for risk, can illuminate the parties' deal. In this manner, it can be used as a tool for uncovering and interpreting the range of behavior that the parties themselves had contemplated. Where traditional methods of interpreting contracts fail to shed light on the meaning of contractual silence, exploring the relative prices the parties paid may often yield an insight.").

can potentially be part of the parties' "complete" statement.[72] Indeed, silence may even be a powerful statement on an issue; as Dean Farnsworth observed, a point "may be left to 'go without saying'" if the drafter is "so confident that his expectation follows from what has been said that it does not seem worthwhile to reduce it to contract language."[73] If the court so views the parties' silence after considering all relevant factors, it may then recognize and enforce the parties' intent with a proper judgment.

In contrast, the second approach has trouble with contractual silence. Definitionally, silence cannot affirmatively require *anything* of a contracting party, much less a specific product defect.[74] By requiring that a specification "cause" the relevant defect, this approach essentially forecloses arguments about the parties' intent in staying silent on a particular point.[75]

This problem is particularly acute for non-design specifications. A *testing* specification, such as those in *Marvin Lumber*[76] and *Air Techniques*,[77] says nothing directly about a product's physical makeup. It thus cannot require anything in that regard, defect or not. Many other types of specifications leave key issues open or subject to substantial discretion.

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72. *See, e.g.*, So Good Potato Chip Co. v. Frito-Lay, Inc., 462 F.2d 239, 241 (8th Cir. 1972) ("A covenant cannot be implied if the parties have either expressly dealt with the matter in the contract or have left the agreement intentionally silent on the point."); Gallagher v. Lenart, 854 N.E.2d 800, 807 (Ill. App. Ct. 2006) ("[W]here a contract purports on its face to be a complete expression of the entire agreement, courts will not add another term about which the agreement is silent."); Evans v. Famous Music Corp., 807 N.E.2d 869, 872 (N.Y. 2004) ("If that intent is discernible from the plain meaning of the language of the contract, there is no need to look further. This may be so even if the contract is silent on the disputed issue.").

73. E. Allan Farnsworth, *Disputes Over Omission in Contracts*, 68 COLUM. L. REV. 860, 872 (1968).

74. *See, e.g.*, *Silence*, MERRIAM-WEBSTER DICTIONARY, https://merriam-webster.com/dictionary/silence (last visited Aug. 26, 2021) ("Definition of *silence* . . . 1: forbearance from speech or noise: MUTENESS . . . 2: absence of sound or noise: STILLNESS // in the *silence* of the night 3: absence of mention: OBLIVION, OBSCURITY").

75. *See* Zeon Chems. USA, Inc. v. CPS Chem. Co., Nos. 96-5668, 96-5723, 1997 WL 659683, at *2 (concluding that contractual silence relieved the seller of "the dilemma of either breaching the express warranty . . . or the implied warranty of merchantability").

76. Marvin Lumber & Cedar Co. v. Sapa Extrusions, Inc., 964 F. Supp. 2d 993, 1006 (D. Minn. 2013) (discussing the scope of express specifications and addressing "testing" specifications that "cover[ed] the pretreatment, coating, and testing of . . . lineals" for windows and doors).

77. Air Techs., Inc. v. Calgon Carbon Corp., No. 93-1412, 1995 WL 29018, at *1 (4th Cir. Jan. 26, 1995) (addressing a military specification that "require[d] testing of . . . carbon for gas sorption of certain gases").

For example, one reference identifies eight general types of specifications: requirement, design, material, standards, interface, test, performance, and quality.[78] Another identifies four types: requirement, functional, "design or product," and "'in-service' or 'maintained as.'"[79] Few of those types of specifications affirmatively require something about the product that could give rise to a warranty claim.

The authors' *Rmax* case shows the difficulties of the second approach.[80] In *Rmax*, the buyer purchased building insulation from a manufacturer.[81] The buyer complained that after installation on a warehouse rooftop, the insulation "curled" and "cupped" (i.e., wrinkled) in an unattractive way[82] and claimed a breach of the UCC's implied warranties.[83]

The relevant contract specifications involved two topics: (1) the testing to be performed at the manufacturer's factory and (2) the flatness of the insulation at the time of installation on the building.[84] (A disclaimer of implied warranties by the manufacturer fell out of the parties' contract in a "battle of the forms."[85]) Because neither set of specifications directly addressed the problem that gave rise to the buyer's claim, the case hinged on the effect of the parties' silence.[86] While the parties settled before the court of appeals issued an opinion, the issue presented illustrates the complexity of fitting these kinds of specifications into the framework used by the second line of cases. Definitionally, a testing specification does not

78. John Spacey, *8 Types of Specifications*, SIMPLICABLE (Sept. 8, 2017), https://simplicable.com/new/specifications.

79. *Specification (Technical Standard)*, WIKIPEDIA, https://en.wikipedia.org/wiki/Specification_(technical_standard) (last visited Aug. 26, 2021).

80. *See* Rmax Operating, LLC v. GAF Materials Corp., No. DC-13-04125 (Dallas Cnty. Ct. Nov. 13, 2015), *appeal dismissed*, Rmax Operating, LLC v. GAF Materials Corp., No. 05-16-00118-CV (Tex. Crt. App. Apr. 4, 2018).

81. Brief of Appellant at 1, Rmax Operating, LLC v. GAF Materials Corp., No. 05-16-00118-CV (Tex. Crt. App. Apr. 4, 2018) [hereinafter *Rmax* App. Brief].

82. *Id.* at 8–9.

83. *See id.* at 8–12.

84. *See id.* at 14–16.

85. *See id.* at 29–30. *See generally* Northrop Corp. v. Litronic Indus., 29 F.3d 1173, 1178 (7th Cir. 1994) ("The Uniform Commercial Code, as we have said, does not say what the terms of the contract are if the offer and acceptance contain different terms, as distinct from cases in which the acceptance merely contains additional terms to those in the offer. The majority view is that the discrepant terms fall out and are replaced by a suitable UCC gap-filler.").

86. *See Rmax* App. Brief, *supra* note 81, at 14–16 (detailing the parties' "comprehensive Specification Agreement," which failed to require that the insulation have an attractive visual appearance once installed).

determine a product's components, although it can strongly signal what the parties intended about potential components.

As detailed above, each case in this area presents a unique technical situation and set of specifications. The basic legal issue, however, is the same as in any breach of contract case: "ascertain[ing] the true intentions of the parties as expressed in the instrument."[87] The first line of cases provides a more useful tool for analyzing that issue than the second line of cases, which fits poorly with both contractual silence and specifications about criteria other than performance. To use the "precise and complete" test most effectively, a court should remember that in this setting, silence can be an important part of a "complete" set of product specifications.[88]

B. Reference Points

Two issues are likely to inform a court's review in these cases. The first is consideration of a contract's "commercial context," in which a court may consider the facts and circumstances surrounding a contract, including "the commercial or other setting in which the contract was negotiated and other *objectively determinable* factors that give context to the parties' transaction."[89] While the boundary can be hard to draw in some cases, that review is conceptually distinct from and excludes the consideration of parol evidence about the contracting parties' subjective intent.[90]

Johnson Insulation illustrates such a review, observing that "the effect of a buyer's specifications on the warranty of merchantability depends on a number of variables, including the nature and uniqueness of the product, the extent of the buyer's role in product design, the sophistication of the parties, and their prior course of dealing."[91] Similarly, *Rust Engineering* noted that the plaintiff was operating a "new and novel type of facility" with which it had no prior experience,[92] while *Zeon* observed that the contaminant was "known to interfere" with the buyer's manufacturing process.[93]

87. *E.g.*, Coker v. Coker, 650 S.W.2d 391, 393 (Tex. 1983).

88. *See supra* Section III.A.

89. *E.g.*, Americo Life, Inc. v. Myer, 440 S.W.3d 18, 22 (Tex. 2014) (emphasis added).

90. *See, e.g.*, Houston Expl. Co. v. Wellington Underwriting Agencies, Ltd., 352 S.W.3d 462, 469 (Tex. 2011).

91. Commonwealth v. Johnson Insulation, 682 N.E. 2d 1323, 1327 (Mass. 1997).

92. Rust Eng'g Co. v. Lawrence Pumps, Inc., 401 F. Supp. 328, 332 (D. Mass. 1975).

93. Zeon Chems. USA, Inc. v. CPS Chem. Co., Nos. 96-5668, 96-5723, 1997 WL 659683, at *3 (6th Cir. Oct. 22, 1997).

In *Baker Hughes*, the Fifth Circuit identified another relevant part of the commercial context: how all claimed warranties fit together in time.[94] Certain issues may only be relevant to specific points in the process of manufacture, shipment, and installation. And in addition to clarifying how contract terms fit together with each other, this issue may also help the analysis of any causation issues. The warranty of merchantability relates to the quality of goods "at the time they left the manufacturer's or seller's possession,"[95] and specifications that come into play after that point may involve the responsibility of other parties.

These background factors can show why the parties chose to remain silent on a topic. For example, while many of the cases have involved a custom contract negotiated between the parties and tailored to the transaction at issue,[96] *Johnson Insulation* involved bulk sales over an extended time period.[97] Although that court went on to develop and then apply the second "caused-the-defect" framework, this distinguishing fact about the parties' relationship clearly affected its analysis and would be relevant under the first approach as well.[98] The argument for an implied warranty can be strengthened, as it was in that case, if the parties have had no real opportunity or reason for transaction-specific negotiations.[99]

Those considerations are not necessarily dispositive, which is why a second aspect of the record has particular importance: price.[100] In *Mohasco Industries*, for example, the court noted that adding features to the carpet would have raised the price, which the manufacturer "was not at liberty to [do]" under the contract.[101] The court in *Cumberland Farms* made a similar observation as to the plaintiff's decisions about the quality of the relevant

94. Baker Hughes Process & Pipeline Servs L.L.C., v. UE Compression L.L.C., 938 F.3d 661, 670–71 (5th Cir. 2019).

95. *E.g.*, Plas-Tex, Inc. v. U.S. Steel Corp., 772 S.W.2d 442, 444 (Tex. 1989); *see also* MAN Engines & Components, Inc. v. Shows, 434 S.W.3d 132, 139 (Tex. 2014) (observing how this timing requirement separates a manufacturer's "duty to place merchantable goods into the stream of commerce" from "how much use and abuse a product suffers at the hands of its owners").

96. *See supra* Section II.A.

97. *See* Commonwealth v. Johnson Insulation, 682 N.E.2d 1323, 1325 (Mass. 1997) (noting the building materials were supplied over several decades).

98. *See id.* at 1327–28 (noting the parties' relationship did not include "detailed, precise, and complete" specifications for the products supplied).

99. *See generally* Yair Listokin, *The Meaning of Contractual Silence: A Field Experiment*, 2 J. LEGAL ANALYSIS 397, 399–401 (2010) (reviewing the "implicit understandings" of the parties to commercial contracts).

100. *See* Illig, *supra* note 71, at 366.

101. Mohasco Indus., Inc. v. Anderson Halverson Corp., 520 P.2d 234, 236 (Nev. 1974).

brick.[102] As the authors contended in their *Rmax* case, a low price may signal that the plaintiff is trying to have the best of both worlds: an inexpensive product that is still protected by a strong warranty.[103]

These same factors would also be relevant if a case went to trial because of disputes about material facts, as happened in *Momax*[104] and *Scientific Components*.[105] While local procedure defines the precise issues for trial, the general challenge in framing those issues is that "care should be taken that the submission does not ask the jury to decide questions of law, which must be determined by the court alone."[106] In drafting the fact questions to be answered, issues about contract formation (i.e., whether the parties' agreement included a particular specification)[107] and contract performance (i.e., whether a particular specification was satisfied)[108] are more traditional jury questions than contract meaning, which ordinarily requires a judicial finding of ambiguity to present a triable question of fact.[109] For any of these topics, treating them as a question of fact requires determining the burden of proof, and that procedural matter can be case-dispositive if the evidence does not clearly favor either side.[110]

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102. Cumberland Farms, Inc. v. Drehmann Paving & Flooring Co., 520 N.E.2d 1321, 1325 (Mass. App. Ct. 1988) (noting the defendant "did not possess any degree of discretion" to install the brick differently).

103. *See Rmax* App. Brief, *supra* note 81, at 15–16.

104. *See* Court's Charge to the Jury, *supra* note 33, at 16, 18.

105. *See* Sci. Components Corp. v. Sirenza Microdevices, Inc., No. 03-CV-1851(NGG)(RML), 2006 WL 2524187, at *7 (E.D.N.Y. Aug. 30, 2006).

106. *See, e.g.*, TEX. PATTERN JURY CHARGES: BUS., CONSUMER, INS. & EMP. § 101.1 cmt. at 42 (COMM. ON PATTERN JURY CHARGES OF THE STATE BAR OF TEX. 2020) [hereinafter PJC].

107. *See* Marvin Lumber & Cedar Co. v. Sapa Extrusions, Inc., 964 F. Supp. 2d 993, 999 (D. Minn. 2013) (finding a fact issue as to whether a particular warranty had been agreed upon when "there are thumbs pressing on both sides of the evidentiary scale"); *see also Rmax* App. Brief *supra* note 81, at 29–30 (describing the "battle of the forms" under the UCC). *See generally* PJC, *supra* note 106, § 101.3 ("Instruction on Formation of Agreement").

108. *See Sci. Components Corp.*, 2006 WL 2524187, at *5–*7 (detailing issues of fact for trial about the quality of the amplifiers). *See generally* PJC, *supra* note 106, § 101.2 ("Basic Question—Compliance").

109. *See, e.g.*, Hoover Panel Sys., Inc. v. HAT Cont., Inc., No. 19-10650, 2020 WL 3273003, at *196 (5th Cir. June 17, 2020).

110. *See generally* Frigaliment Importing Co. v. B.N.S. Int'l Sales Corp., 190 F. Supp. 116, 121 (S.D.N.Y. 1960) ("For plaintiff has the burden of showing that 'chicken' was used in the narrower rather than in the broader sense, and this it has not sustained.").

If a court finds ambiguity and has a trial about contract meaning, cases such as *Rust Engineering*,[111] as well as commentators,[112] have turned to the doctrine of "contra proferentum," which says that "where an ambiguity exists in a contract, the contract language will be construed strictly against the party who drafted it since the drafter is responsible for the language used."[113] Of course, a finding of ambiguity requires "a choice of reasonable interpretations of the contract"[114] rather than simply language that "is imprecise,"[115] but the doctrine can still have considerable power in these cases given the different views that the parties will likely have about a facially unclear specification.

None of these observations are intended to suggest limits on a court's ability to consider relevant arguments and evidence. They simply note topics that, based on the authors' survey, are particularly relevant to the likely issues in this kind of dispute.

Conclusion

A conflict between implied warranties and express specifications involves two basic commercial-law concepts. While the UCC implies certain "gap-filler" warranties into every contract, it also gives priority to terms that the parties specifically negotiated for their agreement, including waivers of those implied warranties.[116]

Courts have developed two tests for resolving such disputes. The first asks whether the parties' express specifications are "precise and complete,"

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111. *See* Rust Eng'g Co. v. Lawrence Pumps, Inc., 401 F. Supp. 328, 332 (D. Mass. 1975) (noting that "the contract documents, particularly specifications, were substantially under the control of plaintiff").

112. *See* 1 BARKLEY CLARK & CHRISTOPHER SMITH, LAW OF PRODUCT WARRANTIES § 5:15 (perm. ed., rev. vol. 2019) (citing *Momax*) ("[S]o far as the specifications are to blame and not the workmanship or materials, the loss should fall on the buyer. . . . [W]hen a buyer provides a seller with detailed product specifications, the seller will often be deemed to have rightfully withheld the implied warranties."); *see also* 1 THOMAS M. QUINN, QUINN'S UNIF. COM. CODE COMMENT. & L. DIG. § 2-316[A][16] (rev. 3d ed. 2010) (citing *Momax*) ("Without the statutory formulations in § 2-316, yet another disclaimer might arise in situations where the buyer has provided the specification for the manufacture of the product in question.").

113. *E.g.*, Gonzalez v. Mission Am. Ins. Co., 795 S.W.2d 734, 737 (Tex. 1990).

114. *E.g.*, Hoover Panel Sys., Inc., 2020 WL 3273003, at *195.

115. Mt. Hawley Ins. Co. v. Advance Prods. & Sys., Inc., 597 F. App'x 780, 784 (5th Cir. 2015).

116. *See supra* Part I.

while the second focuses on whether the specifications affirmatively require the alleged defect.[117]

The second framework has difficulty when the parties' contract is silent on a particular issue, which makes it a poor fit with the full range of specifications (testing, performance, etc.) in the complex modern economy—many of which do not speak directly to product design.[118] Accordingly, this Article recommends that courts focus on the first approach rather than the second, while remembering that silence could well be the parties' deliberate choice in these types of contracts.[119]

117. *See supra* Section II.C.
118. *See supra* Part III.
119. *See supra* Part III.