

IN THE SUPREME COURT OF TEXAS

No. 18-1181

EMERSON ELECTRIC CO. D/B/A FUSITE AND
EMERSON CLIMATE TECHNOLOGIES, INC., PETITIONERS,

v.

CLARENCE JOHNSON, RESPONDENT

ON PETITION FOR REVIEW FROM THE
COURT OF APPEALS FOR THE SECOND DISTRICT OF TEXAS

Argued October 6, 2020

JUSTICE BLAND delivered the opinion of the Court.

For over a decade, an electric terminal manufacturer made two functionally identical terminals for essentially the same cost. The difference was that the older of the two designs was significantly more susceptible to catastrophic failure. A corporate affiliate of the terminal maker elected to use the older product in manufacturing new air conditioning compressors.

An experienced heating, venting, and air conditioning technician purchased and installed a compressor containing the older terminal design. Despite his experience in the HVAC industry, the technician could not know that the brand-new compressor incorporated the outdated technology inside the unit; nor did he know that the unusual noise emitting from the new compressor the day after he installed it was a sign of imminent danger. When the compressor

became overheated, the terminal emitted scalding pressurized fluids that ignited and covered the technician, resulting in serious burns.

A jury concluded that the older terminal design was unreasonably dangerous and that the design and the failure to warn of this hazard caused the technician's injuries. The trial court rendered judgment on the jury's verdict, and the court of appeals affirmed. The manufacturers seek to overturn the verdict on legal-sufficiency grounds, or to have another trial due to jury charge error. We conclude that legally sufficient evidence supports the jury's design-defect finding and that the trial court's jury charge did not result in an improper verdict. We therefore affirm the judgment of the court of appeals.

I

A

Clarence Johnson, the respondent, is an experienced and licensed HVAC technician. Johnson maintained the air conditioning units on the rooftop of the Miller Food Mart in Fort Worth for two years before the accident. In August 2012, the Miller Food Mart owner called Johnson because the store's air conditioning was not working. Johnson determined that the HVAC unit's compressor would have to be replaced. That day, Johnson purchased and installed a new compressor, made and sold by petitioner Emerson Climate Technologies. The compressor incorporated an electric terminal designed by petitioner Emerson Electric Company, sold under the business name of "Fusite."

The Emerson compressor contains an electric motor that pumps refrigerant fluid through an HVAC unit. To do so, the compressor must keep the fluid under constant high pressure and the unit must remain sealed airtight. Electricity enters the compressor through the terminal to run the

motor. The electricity travels through the terminal to the motor on metal pins encased in insulating glass. In the event of an electrical surge or arcing inside the compressor, the compressor, the pressurized fluids, and the terminal pins can become overheated. Overheated pins weaken the Fusite terminal's insulating glass. When the insulating glass weakens, it does not hold the terminal pins in place. The heated, pressurized contents inside the compressor can expel the pins, spraying scalding refrigerant and oil through the no-longer-sealed electric terminal.

The unintended release of a compressor's pressurized contents when the seal breaks on the terminal is known in the industry as "terminal venting." To mitigate the risk of terminal venting, Fusite places a horizontal groove on at least one terminal pin. In the event of a power surge, this pin snaps at the groove and cuts off power to the motor inside the compressor. The groove prevents the pressurized contents from pushing out the pins and venting.

The electric terminal welded to the compressor in this case was a Fusite 600 series model. In this model, the horizontal groove on the pin is etched on the lower part of the pin, *inside* the compressor's insulating glass. Although the groove eventually cuts off power, it snaps too late to prevent venting when the insulating glass that holds the terminal pins, exposed to high heat, fails before the grooved pin snaps.

For at least fifteen years before Johnson bought the Emerson compressor involved in this accident, Fusite marketed another terminal, the 700 series. Crucially, in this design, Fusite moved the pin groove to just *outside* the insulating glass. This small change—which cost Fusite nothing¹—interrupts a power surge before it weakens the terminal's insulating glass. In Fusite's

¹ Though Fusite appears to have charged a ten-cent premium for the 700 series terminal over the 600 series, its corporate representative testified that moving the groove on the pin to its new location resulted in no cost increase.

testing results, the 700 series performed significantly better than the 600 series at preventing terminal venting due to an overloaded electrical current.

Fusite marketed the 700 and the 600 series terminals side-by-side. Its corporate affiliate, Emerson Climate, incorporated the older 600 series terminal into the new compressor that Johnson purchased and installed. Johnson could not know the difference: the groove on the terminal pin is concealed inside the terminal in both models. The only warning suggesting a risk from terminal venting was a pictorial of a directional explosion.

The day after Johnson installed the new compressor, Miller Food Mart called again to report continued air-conditioning problems. Johnson sent his assistant, Antonio Morris, to investigate. Morris reported back that electrical fuses had blown. Johnson joined Morris to replace the fuses and reset the breaker.

When Johnson turned the HVAC unit back on, he heard an unusual noise—“a rumbling” that “didn’t sound threatening.” He did not know that the noise was consistent with electrical arcing occurring inside the new Emerson compressor or that the noise was a warning sign of imminent terminal venting.

Johnson traced the noise to the new compressor. He disconnected the power and knelt to open the terminal cover to take an electrical reading. At that point, two of the terminal’s three pins shot out, along with the compressor’s pressurized contents. The super-heated, pressurized fluids from inside the compressor ignited and covered Johnson. Johnson suffered second- and third-degree burns over sixty percent of his body. Morris was also splattered with the fluid and suffered small burns.

As Johnson's expert put it, the compressor experienced "full electrical catastrophic failure." Emerson's corporate representative conceded that the most likely explanation for the accident was that a high electrical current had degraded the terminal connection between the pins and the insulation glass, causing the terminal to vent.

B

Johnson sued Emerson and Fusite, claiming that they defectively designed and marketed the terminal and compressor. Johnson relied on expert engineering testimony to show that safer alternative designs existed—namely, among others, Fusite's 700 series terminal. The 700 series design, Johnson contended, would have prevented the terminal venting in this case. Emerson and Fusite witnesses conceded that they knew of the dangers of terminal venting. They further conceded that they produced the 700 series terminal for essentially the same cost as the 600 series terminal. And, unlike Emerson, one of its direct competitors expressly warns that loud sounds coming from its compressors are a sign of imminent terminal venting.

Emerson and Fusite defended the case largely on the basis that terminal venting is a known risk in the HVAC industry, and in particular, Johnson himself knew about this risk. Morris, Johnson's assistant, testified that Johnson had warned him of the risks of terminal venting—that "if the pressure inside of the compressor builds up too high . . . it shoots out really, really fast kind of like a bullet." Johnson had told Morris to "stand to the side" at some point while the pair were servicing a Miller Food Mart HVAC unit.² Johnson acknowledged that he knew of the risk of terminal venting generally. But he associated that risk with older compressors, not brand-new

² As the court of appeals observed, neither Morris nor Johnson was asked when Johnson made this statement to Morris, and the date is not apparent from its context in the record.

models. Emerson's own HVAC education expert admitted that he was unaware of the audible signs of imminent venting.

Emerson and Fusite further faulted Johnson for leaving the power connected to the compressor while he worked on it, suggesting that this caused the scalding fluid to ignite when it escaped the terminal. Johnson denied that he had left the power connected at the time he opened the terminal cover. The jury heard other conflicting evidence on the matter.

Rejecting these theories for the most part, the jury found that the compressor and terminal had design defects that made them unreasonably dangerous, causing Johnson's injuries. The jury further found that Emerson failed to provide adequate warnings about the risk of terminal venting. It found Johnson partly responsible for his injuries. In a single apportionment question, the jury allocated proportionate responsibility for Johnson's injuries, assigning 75% to Emerson, 15% to Fusite, and 10% to Johnson. The trial court rendered judgment on the jury's verdict, with Emerson liable for the damages awarded less Johnson's responsibility, and Fusite jointly and severally liable for part of that amount.

Emerson and Fusite appealed. Pertinent here, they challenged the legal sufficiency of the evidence supporting Johnson's design-defect and marketing-defect claims. They also challenged the trial court's charge to the jury in two respects.

The court of appeals affirmed.³ The court concluded that the evidence supports the jury's findings on the design-defect claim, including competent evidence and expert testimony that a safer alternative design existed. The court of appeals further concluded that the evidence supports the jury's finding on Johnson's marketing-defect claim, in part because the signs of imminent

³ 601 S.W.3d 813, 848 (Tex. App.—Fort Worth 2018).

terminal venting for the compressor were not obvious, and Johnson’s experience did not negate the need for a warning like the one that Emerson’s competitor gave. The court of appeals held that there were no reversible errors in the jury charge for either claim.

We granted review. Before this Court, Emerson and Fusite challenge the legal sufficiency of the evidence supporting liability and ask that we render judgment in their favor. In the alternative, they contend that jury charge error requires a new trial.

II

We first address Emerson and Fusite’s challenge to the jury’s verdict that a defective design caused Johnson’s injuries.⁴ “To recover for a products liability claim alleging a design defect, a plaintiff must prove that (1) the product was defectively designed so as to render it unreasonably dangerous; (2) a safer alternative design existed; and (3) the defect was a producing cause of the injury for which the plaintiff seeks recovery.”⁵

Emerson and Fusite no longer challenge the evidence that a safer alternative design existed. They instead urge that no evidence shows that the 600 series terminal was unreasonably dangerous considering its intended use in the compressor. They further claim that the record lacks evidence to show the ignition source for the escaping fluid and that the superheated fluid would not have caused Johnson’s injuries had it not caught fire.

⁴ The jury found that Fusite’s terminal and Emerson’s compressor contained a design defect. The court of appeals addressed the design-defect finding in relation to Fusite. *Id.* at 832. However, the arguments Emerson and Fusite raise in this Court—that Johnson’s expert should have been excluded and that Johnson failed to prove causation—apply equally to Emerson as designer of the compressor and Fusite as designer of the terminal. In this Court, neither asks that we distinguish the basis for liability for a design defect between the two defendants; thus, we address their liability together.

⁵ *Timpte Indus., Inc. v. Gish*, 286 S.W.3d 306, 311 (Tex. 2009).

A

At the outset, Emerson and Fusite contend that Johnson's expert's opinion as to the unreasonableness of the danger should have been excluded for lack of its reliability. Without that expert testimony, they argue, there is no evidence that their product was defective.

Johnson responds that Emerson and Fusite did not seek in the trial court to exclude his expert's testimony that the 600 series was unreasonably dangerous on the ground that the expert failed to consider the utility of the product, as they argue now. Ample evidence, Johnson further responds, demonstrates that the product was unreasonably dangerous.

Johnson's expert, Don Russell, Ph.D., is a tenured electrical engineering professor and researcher at Texas A&M University. He is also a licensed professional engineer with a specialty in electric power and circuits. He holds multiple patents relating to electrical system protections and faults. Russell described the reasons that the compressor failed and eventually vented, relying on Fusite's own testing data. That data demonstrates that Fusite's 700 series was a safer design than the 600 series because the location of the groove in the pin in the 700 series protects against the failure of the terminal's insulating glass. In Russell's opinion, the defective design of the 600 series was a producing cause of Johnson's injuries. Russell also suggested ways the fluid may have ignited even if Johnson had disconnected the power to the compressor.

B

Expert testimony is not admissible when the underlying methodology, technique, or foundational data the expert uses is unreliable or when the testimony is not relevant to an issue the

jury must decide.⁶ An objection to the admissibility of expert testimony must be sufficiently timely and specific to allow the court to exercise its role as the gatekeeper of the evidence.⁷

Before trial, Emerson and Fusite moved to exclude Russell’s testimony on several grounds, but none challenged Russell’s opinion about the compressor’s dangerousness. In this Court, Emerson and Fusite now argue that Russell failed to consider whether the compressor was *unreasonably* dangerous. They point to his pretrial affidavit in which, they contend, he does not discuss whether the danger associated with the compressor was an unreasonable one. This complaint does not comport with any of the challenges that Emerson and Fusite presented to the trial court. The trial court had no opportunity to consider whether Russell “used the wrong test” as Emerson and Fusite advocate now. Accordingly, this claimed error in the admission of expert testimony is not preserved for our review.

We nevertheless examine this argument in the context of Emerson and Fusite’s legal-sufficiency challenge. In no-evidence challenges in their motions for directed verdict and judgment notwithstanding the verdict, they urged that the 600 series was not unreasonably dangerous. We uphold the jury’s finding if some evidence supports it.⁸

C

Emerson and Fusite concede that the jury heard evidence that the compressor was dangerous but contend that it heard no evidence supporting a finding that the product was *unreasonably* dangerous. “In determining whether a product is defectively designed, the jury must

⁶ *Coastal Transp. Co., Inc. v. Crown Cent. Pet. Corp.*, 136 S.W.3d 227, 232–33 (Tex. 2004).

⁷ *See id.*; *see also* TEX. R. APP. P. 33.1(a)(1)(A) (requiring complaining parties to make timely objections “with sufficient specificity to make the trial court aware of the complaint, unless the specific grounds were apparent from the context”).

⁸ *Ford Motor Co. v. Castillo*, 444 S.W.3d 616, 620 (Tex. 2014).

conclude that the product is unreasonably dangerous as designed, taking into consideration the utility of the product and the risk involved in its use.”⁹ In *American Tobacco Co. v. Grinnell*, we identified five types of evidence admissible in design-defect cases:

(1) the utility of the product to the user and to the public as a whole weighed against the gravity and likelihood of injury from its use; (2) the availability of a substitute product which would meet the same need and not be unsafe or unreasonably expensive; (3) the manufacturer’s ability to eliminate the unsafe character of the product without seriously impairing its usefulness or significantly increasing its costs; (4) the user’s anticipated awareness of the dangers inherent in the product and their avoidability because of general public knowledge of the obvious condition of the product, or of the existence of suitable warnings or instructions; and (5) the expectations of the ordinary consumer.¹⁰

In *Timpte Industries, Inc. v. Gish*, we observed that a determination of whether the risk–utility evidence presented is legally sufficient requires consideration of the *Grinnell* factors, though they are not themselves elements of a design-defect claim.¹¹ Rather, the jury must balance this evidence to decide whether the product is or is not unreasonably dangerous; we do not disturb that balance “unless the evidence allows but one reasonable conclusion.”¹²

With respect to the first factor, Johnson does not dispute that Emerson’s air conditioning compressor was a useful product to Johnson and the public. Emerson and Fusite, in turn, do not dispute the gravity of Johnson’s injuries. At trial, the parties instead disputed the obviousness of the risk and the feasibility of a safer design.

On this point, the jury heard evidence that Fusite’s 700 series terminal was a safer alternative design and was available for practically the same cost as the more-dangerous 600 series

⁹ *Am. Tobacco Co., Inc. v. Grinnell*, 951 S.W.2d 420, 432 (Tex. 1997).

¹⁰ *Id.*

¹¹ 286 S.W.3d 306, 311–12 (Tex. 2009).

¹² *Genie Indus., Inc. v. Matak*, 462 S.W.3d 1, 10 (Tex. 2015).

terminal. Emerson and Fusite have since abandoned their argument to the contrary. In this Court, Emerson and Fusite instead argue that the existence of a safer alternative design is not a “substitute” for the *Grinnell* factors.

The *Grinnell* factors describe the types of evidence admissible to show an unreasonably dangerous product. In this case, the evidence that shows the feasibility, cost, and availability of a safer alternative design also addresses the *Grinnell* factors, providing evidentiary support for the jury’s design-defect finding. The 700 series terminal, made by the same manufacturer for use in air conditioning compressors for about the same cost, addresses both “the availability of a substitute product which would meet the same need and not be unsafe or unreasonably expensive” and “the manufacturer’s ability to eliminate the unsafe character of the product without seriously impairing its usefulness or significantly increasing its costs.”¹³ In this case, the existence of the safer 700 series terminal is evidence of the “utility of the product to the user and to the public as a whole weighed against the gravity and likelihood of injury from its use” because the 700 and 600 series terminals have the same utility and are made by the same manufacturer for about the same cost.¹⁴ Johnson also presented evidence about other air conditioning compressors available on the market at the time with safer designs.

To be clear, the existence of an alternative design is not proof that a product’s design is unreasonably dangerous. As we expressed in *Grinnell*, the cost, feasibility, and availability of the alternative design relative to the claimed danger must demonstrate that the danger present in the product was unreasonable in light of the product’s intended use. That evidence was present here.

¹³ *Grinnell*, 951 S.W.2d at 432.

¹⁴ *Id.*

The jury heard that Fusite simultaneously marketed two designs that accomplished the same function for essentially the same cost and had data before it that showed that the older design was significantly more likely to terminally vent and cause serious injury. A former Fusite employee, who was involved in the design of the 700 series, testified that the very purpose of the 700 series was to reduce the possibility of terminal venting. Fusite’s director of engineering agreed that there was no price difference between the 600 and 700 series terminals. Fusite documents claimed that the 700 series had improved performance compared to the 600 series. Dr. Russell opined that Johnson would not have been injured had Emerson’s compressor incorporated the 700 series terminal instead of the 600 series. Finally, Johnson produced evidence—some of it from Emerson’s witnesses—that terminal venting and ignition are known causes of serious injury in the industry. Recognizing this danger, Emerson’s corporate representative agreed that a warning about this risk was “a good idea” and that Emerson “should” provide one. We hold that legally sufficient evidence supports the jury’s finding that the Fusite terminal and Emerson compressor were unreasonably dangerous.

D

Finally, Emerson and Fusite challenge the lack of evidence supporting the ignition source of the fluid that vented through the terminal and covered Johnson, suggesting that Johnson would not have been injured had the fluid not caught fire as it vented. Emerson and Fusite further argue that Dr. Russell’s testimony about the cause of the fluid’s ignition was speculative and should not have been admitted.

Emerson and Fusite posited to the jury that Johnson caused the compressor fluid to ignite because he left the power running to the compressor when he opened the terminal cover. They rely

on a statement that his assistant made and later recanted. Johnson denied that he had reconnected the compressor to the power source when the terminal blew. Firefighters who arrived at the scene testified that the fuse disconnect was sitting on top of the HVAC unit upon their arrival, indicating that the power had been disconnected. They authenticated photographs of the accident scene that show the disconnect placed on the top of the unit.

Like the court of appeals, we conclude that the jury had no need to resolve the source of the ignition of the escaping fluid to conclude that a design defect was a producing cause of Johnson's injuries. We require expert testimony on causation when an issue involves matters beyond jurors' common understanding.¹⁵ In *Mack Trucks, Inc. v. Tamez*, we rejected the plaintiffs' claim that a defectively designed fuel system caused a fatal fire—as opposed to other sources of fuel at the scene of the accident—when the plaintiffs lacked competent expert testimony to support their claim that the fuel system was the cause.¹⁶ We observed that “determining which of the fire triangle's fuel sources . . . would have first ignited, or the source for the first ignition” lay outside jurors' common understanding.¹⁷

In this case, in contrast, it was undisputed that the terminal's escaping fluid fueled the flames. While it may be that not every instance of terminal venting results in ignition, the jury heard evidence that serious burn injuries are a foreseeable consequence of terminal venting, apart from Dr. Russell's testimony. A Fusite vice-president agreed that heated oil and gas escaping during a terminal vent “can be hot enough to cause serious injury or death.” Emerson's corporate representative agreed that Emerson had known of the possibility of terminal venting—both with

¹⁵ *Gharda USA Inc. v. Control Sols., Inc.*, 464 S.W.3d 338, 348 (Tex. 2015).

¹⁶ 206 S.W.3d 572, 582–83 (Tex. 2006).

¹⁷ *Id.* at 583.

and without ignition—for over twenty years. A warning from Emerson’s competitor, Tecumseh, specifically identifies that “[b]urns from compressor terminal venting with ignition may result.” Because the emission of scalding fluid is a known consequence of terminal venting, and the evidence is undisputed that the terminal vented, this case is unlike *Mack Trucks*, in which the jury had to sort between competing sources of fuel and ignition. Nor is this case like *Gharda USA, Inc. v. Control Solutions, Inc.*, where the plaintiffs’ theory of causation required pure conjecture.¹⁸ The evidence in this case presented a single source of fuel—the venting fluid—and further that its ignition upon venting was foreseeable.

Emerson and Fusite did not contest the medical evidence at trial that Johnson would have been seriously burned even had the fluid not ignited. Johnson’s medical expert testified that “[a]ny fluid that is extremely hot or superheated would be enough to cause these second- and third-degree burns as sustained by Mr. Clarence Johnson.” Emerson and Fusite did not challenge the reliability of this medical testimony.¹⁹ We hold that the admission of Dr. Russell’s testimony about the cause of ignition did not cause an improper verdict.

Emerson and Fusite press the importance of the ignition source because, they argue, it indicates that Johnson was at fault: he “unwisely” reconnected the electricity to the compressor before he opened the terminal cover. The jury heard disputed evidence in support of that theory, and it assigned some responsibility for the accident to Johnson. Even accepting Emerson and Fusite’s argument about this disputed evidence, it does not demonstrate that the causation evidence

¹⁸ 464 S.W.3d at 350.

¹⁹ Though they introduced no countervailing expert, Emerson and Fusite speculate in their reply brief that the fluid would not have been hot enough to burn Johnson had it not ignited. Their claim is undercut by their acknowledgment that Morris, as he testified, was also “burned by the oil splatter.” The spray that vented but did not ignite burned Morris in the places it landed on him.

supporting the verdict was legally infirm. The jury reasonably could have credited the testimony that a defective design caused the terminal to vent scalding fluid and was “a substantial factor in bringing about” Johnson’s injuries, with or without ignition.²⁰ We hold that legally sufficient evidence supports the jury’s finding that a design defect was a producing cause of Johnson’s injuries.

III

We next turn to Emerson and Fusite’s complaint that the jury charge failed to include the *Grinnell* factors in the design-defect liability question. A trial court has broad discretion in constructing the charge, so long as it is legally correct.²¹ “The goal of the charge is to submit to the jury the issues for decision logically, simply, clearly, fairly, correctly, and completely.”²² We will not reverse a jury verdict based on charge error unless the error “probably caused the rendition of an improper judgment” or “probably prevented the petitioner from properly presenting the case to the appellate courts.”²³

The court of appeals rejected Emerson and Fusite’s complaint that the trial court should have listed the *Grinnell* factors in the design-defect question, observing our command in *Acord v. General Motors Corp.* and *Turner v. General Motors Corp.* that “[t]he jury need not and should not be burdened with surplus instructions” when balancing various factors in design-defect cases.²⁴

²⁰ The trial court instructed the jury that a design defect was a producing cause of Johnson’s injury if it was: “a substantial factor in bringing about the occurrence or injury, and without which the occurrence or injury would not have occurred. There may be more than one producing cause.” Emerson and Fusite do not challenge this instruction.

²¹ *Hyundai Motor Co. v. Rodriguez*, 995 S.W.2d 661, 664 (Tex. 1999).

²² *Id.*

²³ *Thota v. Young*, 366 S.W.3d 678, 687 (Tex. 2012) (quoting TEX. R. APP. P. 61.1).

²⁴ 601 S.W.3d 813, 839 (Tex. App.—Fort Worth 2018) (quoting *Acord v. Gen. Motors Corp.*, 669 S.W.2d 111, 115–16 (Tex. 1984)); see also *Turner v. Gen. Motors Corp.*, 584 S.W.2d 844, 851 (Tex. 1979).

Emerson and Fusite assert that *Acord* and *Turner* unjustifiably prevent trial courts from properly instructing the jury in a design-defect case, and they ask us to overrule those cases.

Acord and *Turner* have been abrogated by intervening legislation affecting products-liability cases and no longer accurately state the law. In 1993, the Legislature established that “the burden is on the claimant to prove by a preponderance of evidence that: (1) there was a safer alternative design; and (2) the defect was a producing cause of the personal injury . . . for which the claimant seeks recovery.”²⁵ As codified in section 82.005 of the Civil Practice and Remedies Code, a “safer alternative design” is one that in “reasonable probability”:

(1) would have prevented or significantly reduced the risk of the claimant’s personal injury, property damage, or death without substantially impairing the product’s utility; and

(2) was economically and technologically feasible at the time the product left the control of the manufacturer or seller by the application of existing or reasonably achievable scientific knowledge.²⁶

Charges in design-defect cases must conform to section 82.005, which necessarily requires trial courts to provide instruction beyond that deemed sufficient at the time in *Acord* and *Turner*.

Our language in those cases also does not reflect our current practice of allowing the trial court wide latitude to construct the charge. We would not today conclude that including a legally correct instruction about the *Grinnell* factors was charge error. Instead, we would review such a charge as we review all charges: to ensure that it “(1) assists the jury, (2) accurately states the law, and (3) finds support in the pleadings and evidence.”²⁷

²⁵ TEX. CIV. PRAC. & REM. CODE § 82.005(a).

²⁶ *Id.* § 82.005(b).

²⁷ *Thota*, 366 S.W.3d at 687 (quoting *Columbia Rio Grande Healthcare, L.P. v. Hawley*, 284 S.W.3d 851, 855–56 (Tex. 2009)).

In this case, however, we are not reviewing the trial court’s decision to include the *Grinnell* factors but to exclude them. “[W]hen a trial court refuses to submit a requested instruction that is otherwise proper, the question on appeal is whether the request was reasonably necessary to enable the jury to render a proper verdict.”²⁸ Assuming that a listing of the *Grinnell* factors would assist the jury in determining whether a design defect exists, we conclude that the lack of such an instruction in this case did not cause an improper verdict because the challenged factor was subsumed within the instructions that the trial court gave.

The trial court instructed the jury based on the Texas Pattern Jury Charge,²⁹ hewing closely to Texas Civil Practice and Remedies Code section 82.005. It asked the jury to consider “the utility of the product and the risk involved in its use”:

A “design defect” is a condition of the product that renders it unreasonably dangerous as designed, taking into consideration the utility of the product and the risk involved in its use. For a design defect to exist there must have been a safer alternative design.

“Safer alternative design” means a product design other than the one actually used that in reasonable probability—

- (i) would have prevented or significantly reduced the risk of the occurrence or injury in question without substantially impairing the product’s utility and
- (ii) was economically and technologically feasible at the time the product left the control of the Defendant by the application of existing or reasonably achievable scientific knowledge.

Emerson and Fusite claim that this charge omits the first *Grinnell* factor: “the utility of the product to the user and to the public as a whole weighed against the gravity and likelihood of injury from its use.”³⁰ The instruction to the jury to “tak[e] into consideration the utility of the product and the risk involved in its use,” however, adequately captures this factor.

²⁸ *Gunn v. McCoy*, 554 S.W.3d 645, 675 (Tex. 2018).

²⁹ See STATE BAR OF TEXAS, TEXAS CIVIL PATTERN JURY CHARGES PJC 71.4 (2020).

³⁰ *Am. Tobacco Co., Inc. v. Grinnell*, 951 S.W.2d 420, 432 (Tex. 1997).

The first *Grinnell* factor differs from the PJC’s “utility” in that it focuses on the “utility . . . to the user and to the public as a whole.” Though a proper design-defect charge should include the entire explanatory phrase, its omission was not harmful error in this case. The parties did not dispute the utility of the compressor, either to Johnson or to the public, in contrast to a case in which it might be contested, like *Grinnell*, which involved tobacco products.³¹ Johnson’s presentation of the case did not require the jury to conclude that HVAC units, compressors, or terminals were not useful or not worth the risk of terminal venting. The jury heard evidence that the utility of the 600 series terminal was equivalent to the 700 series terminal, a safer alternative and available design that Fusite manufactured. Emerson and Fusite do not disagree. Though error, the failure to instruct the jury to separately consider the utility of the compressor to Johnson and to the public did not cause an improper verdict.

The first *Grinnell* factor also instructs the jury to consider “the gravity and likelihood of injury,” which is encompassed by the charge’s “risk involved in its use.”³² A charge in a personal-injury products case should focus the jury on “the gravity and likelihood of injury.” But the ordinary definition of “risk” is the “possibility” (or likelihood) “of suffering harm or loss.”³³ It would have been better to instruct the jury to consider the likelihood and the gravity of the injury. Its omission was not harmful error, however, because “risk” encompasses “likelihood.”³⁴ Emerson and Fusite did not dispute that the injury suffered by Johnson was grave indeed. The omission of

³¹ *Id.*

³² *Id.*

³³ *Risk*, AMERICAN HERITAGE DICTIONARY OF THE ENGLISH LANGUAGE (5th ed. 2020).

³⁴ See *Seeger v. Yorkshire Ins. Co.*, 503 S.W.3d 388, 408 (Tex. 2016) (“Including definitions of words of ordinary meaning that are ‘readily understandable by the average person’ in the jury charge is unnecessary.” (quoting *Standley v. Sansom*, 367 S.W.3d 343, 350 (Tex. App.—San Antonio 2012, pet. denied))).

a reference to the “gravity” of the injury did not cause the jury to render an improper verdict in this case.

Emerson and Fusite do not address how the omission of the remaining four *Grinnell* factors caused an improper verdict. Accordingly, we hold that Emerson and Fusite have not shown that the omission of the *Grinnell* factors from the charge in this case requires a new trial.³⁵

IV

When a jury finds liability based on alternative claims, we may affirm on any legally valid ground of recovery that affords complete relief.³⁶ In this case, in addition to finding Emerson and Fusite liable for a defective design, the jury also found Emerson liable for a marketing defect: that it failed to adequately warn of the risk of terminal venting. Both grounds for recovery afford the same relief. As we have rejected the challenges to Johnson’s design-defect claim, and recovery on his marketing-defect claim would not afford greater relief, we need not address Emerson’s challenges to the jury’s marketing-defect finding.

Citing *Romero v. KPH Consolidation, Inc.*³⁷ in their reply brief, Emerson and Fusite nonetheless urge that we address Emerson’s challenges to the marketing-defect finding because the trial court submitted a single question allocating the percentage attributable to Fusite, Emerson, and Johnson for having “caused or contributed to cause the occurrence or injury.” The jury’s apportionment of responsibility, they argue, might be different based on the type of liability found.

³⁵ *Thota v. Young*, 366 S.W.3d 678, 696 (Tex. 2012).

³⁶ See *Boyce Iron Works, Inc. v. Sw. Bell Tel. Co.*, 747 S.W.2d 785, 787 (Tex. 1988) (“When a party tries a case on alternative theories of recovery and a jury returns favorable findings on two or more theories, the party has a right to a judgment on the theory entitling him to the greatest or most favorable relief.”).

³⁷ 166 S.W.3d 212 (Tex. 2005).

The touchstone for whether an objection preserves an issue for appeal is whether the litigant timely and plainly made the trial court aware of its complaint and obtained a ruling.³⁸ In *Romero*, we expressly reserved the question of whether a defendant must object to both the lack of evidence supporting a claim and an apportionment question predicated on more than one ground of recovery.³⁹ In that case, the defendants objected that the trial court improperly had predicated the apportionment question on an invalid ground.⁴⁰

In this case, Emerson and Fusite, which are affiliated entities, did not. Johnson’s proposed charge originally separated the apportionment question for Emerson’s marketing-defect liability and Emerson’s design-defect liability, but Emerson objected and insisted they be combined.⁴¹ Emerson never made the trial court timely and plainly aware of any *Casteel*-type error in the apportionment question.⁴² Having found the evidence sufficient to support one ground of recovery that affords complete relief, we decline to address an alternative ground.

³⁸ *Thota*, 366 S.W.3d at 689.

³⁹ *See Romero*, 166 S.W.3d at 229 (“We need not consider whether [the defendant] was required to object not only to the lack of evidence for the malicious credentialing claim but also to the form of the apportionment question that included the claim because it did both.”).

⁴⁰ *Id.*

⁴¹ The objection to the jury charge stated: “Defendants object to the separate submission of Emerson Climate’s Compressor and Emerson Climate’s Warnings or Instructions with blanks for each.”

⁴² *See Crown Life Ins. Co. v. Casteel*, 22 S.W.3d 378, 389 (Tex. 2000) (“When a single broad-form liability question erroneously commingles valid and invalid liability theories and the appellant’s objection is timely and specific, the error is harmful when it cannot be determined whether the improperly submitted theories formed the sole basis for the jury’s finding.”); *see also* TEX. R. CIV. P. 274 (“No objection to one part of the charge may be adopted and applied to any other part of the charge by reference only.”).

* * *

We hold that legally sufficient evidence supports the jury's design-defect findings. We further hold that the trial court's jury instructions did not cause an improper verdict in this case. Accordingly, we affirm the judgment of the court of appeals.

Jane N. Bland
Justice

OPINION DELIVERED: April 16, 2021