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**IN THE CHANCERY COURT FOR THE STATE OF TENNESSEE**
**TWENTIETH JUDICIAL DISTRICT, DAVIDSON COUNTY**

| | | |
|---|---|---|
| **S&V INDUSTRIES, INC.,** | ) | |
| | ) | |
| **Plaintiff,** | ) | |
| | ) | |
| **VS.** | ) | **NO. 15-956-BC** |
| | ) | |
| **CARLISLE TIRE & WHEEL CO.; CARLISLE TRANSPORT PRODUCTS, INC.; CTP TRANSPORT PRODUCTS, LLC; CARLISLE FLUID TECHNOLOGIES, INC., and THE CARLSTAR GROUP LLC,** | ) | |
| | ) | |
| **Defendants.** | ) | |

# TRIAL RULINGS AND ORDERS, AND MEMORANDUM OF FINDINGS OF FACT AND CONCLUSIONS OF LAW

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## Summary of Case

This lawsuit was filed by a supplier of overseas Nylon 6 tire cord fabric against the Defendants who manufacture specialty tires and wheels and who have a plant located in Clinton, Tennessee.

The Plaintiff/supplier has sued to recover for nonpayment by Defendants of $1,069,075.87 for 400,000 pounds of tire cord the Plaintiff claims the Defendants/buyer forecasted and had the Plaintiff order in September 2013 for Defendants to have sufficient inventory, and for interest and storage costs. The Plaintiff also seeks recovery of its attorneys fees. The Complaint has one cause of action: breach of contract.

The Defendants deny that the Plaintiff is entitled to payment for the goods. Their defenses include that the goods were nonconforming and that the Defendants effectively rejected or revoked acceptance.

Additionally the Defendants dispute the scope of the contract asserted by the Plaintiff. It is the Plaintiff's positon that the contract terms include not only the terms contained in the Purchase Orders ("POs") issued with each delivery to Defendants of the goods but also the parties' course of dealing and performance. That, the Plaintiff claims, included Defendants paying both for goods delivered to them and also goods forecasted quarterly by the Defendants which were purchased and stored by the Plaintiff for the Defendants to call for. The Defendants assert the scope of the contract does not include payment for forecasted goods, is limited to the terms stated on the POs, that each order is an installment with rejection rights, and that course of dealing and performance is not admissible. The Defendants also seek recovery of their attorneys fees.

The trial of this case was conducted from November 6, 2017, to November 16, 2017. The following witnesses testified in court or by deposition: for Plaintiff—Mahesh Douglas, Virginia Stefanko, Ram Kirshnan, Deb Bhattacharyya, Sanjay Chatrath, Richard Allan McKee, Lori Simonelli, Dr. Roop Bhakuni; for Defendants—Jason Babcock, Joel Sprow, Jerry Leyden, Dr. Mark Fleming, Gary Busch, Scott Wyatt, Dan Roadcap, Galen Brooks, Bill Jones, Kathy Taylor; and 294 exhibits were admitted into evidence. Closing arguments were conducted on March 1, 2018, and the Court took the case under advisement.

## Rulings and Orders

After studying the law and the evidence, the Court concludes that the Defendants breached the parties' contract and are liable for payment of the goods and damages. This conclusion is based upon the findings that: (1) the goods were nonconforming yet, (2) the Defendants accepted the goods with knowledge of the nonconformity and did not reasonably or seasonably reject the goods, and (3) the grounds for revocation are not present because the Defendants' acceptance was not reasonably induced either by difficulty of discovery before acceptance or by Plaintiff's assurances. In so concluding, the Court has considered the parties' course of dealing and performance, having determined that it is admissible and appropriate under Tennessee law to consider it in this case.

It is therefore ORDERED that a total of $1,069,075.87 is awarded to the Plaintiff for Defendants' breach of contract, which damages consist of nonpayment for the goods, storage costs, and interest from May 31, 2015, through October 31, 2017.

It is further ORDERED that pursuant to paragraph 27 of the CTP Transportation Products, LLC Global Terms and Conditions (trial exhibit 117) of the parties' contract, the Plaintiff, as "the prevailing party is entitled to . . . a reasonable sum for their attorney's fees in such litigation."

It is ORDERED that by May 11, 2018, Counsel shall contact the Docket Clerk, Mrs. Smith (615-862-5719) for their availability for oral argument on the attorney's fee award on these dates and times:

June 19, 2018 at 1:00 p.m.
June 21, 2018 at 10:30 a.m.

It is also ORDERED that by May 18, 2018, Plaintiff shall file its application for attorneys' fees in accordance with Davidson County Local Rule § 5.05. By June 8, 2018, the Defendants shall file their opposition. June 15 is the deadline for Plaintiff's reply.

The findings of fact and conclusions of law on which the foregoing Orders are based are as follows.

## Findings of Fact and Conclusions of Law

### The Parties

The Plaintiff has operated since 1993. Its business is primarily supply chain management. For its customers located in the U.S. and Europe, the Plaintiff manages and reduces the costs and inventory delays of obtaining remote products by such means as Plaintiff consolidating freight using its containers, taking title to the goods from the sourcer and during storage, and releasing product to the customer upon demand. In this case the Plaintiff performed this work by providing Nylon tire cord fabric from Plaintiff's supplier located overseas to the Defendants located in the U.S.

The Defendants manufacture specialty tires and wheels for recreational, agricultural, construction and other uses, including at its plant located in Clinton, Tennessee. In 2013 the Defendants' business was sold and the ownership changed during times relevant to this lawsuit. For ease of reference and because Defendants do not dispute who is their controlling successor entity, the Defendants shall not be referenced separately in connection with their various actions and roles in the events in issue. They are referred to herein collectively as the "Defendants."

### Dubai, India Production

When the parties first began dealing with each other, the Defendants required the Nylon 6 product Plaintiff supplied to be qualified as conforming to different physical properties and measurements specified by the Defendants: the "Carlisle Tire & Wheel

Raw Material Purchasing Specification" (the "Original Specification"), trial exhibit 5. The Plaintiff's source for Nylon 6 product was SRF whose plant at the time was located in Dubai, India. By November of 2008, the Dubai, India plant had been qualified by the Defendants as a supplier and prices were agreed to, trial exhibit 12. There were two kinds of Nylon 6 product to be provided: 840/2 and 1260/2.

From 2011 through early 2014 some 187 rolls of material were produced for the Defendants in SRF's Dubai, India plant. The proof established that the tires made with the Dubai material had a blister scrap rate (i.e., the percentage of tires produced that had to be scrapped because they had blisters) that was normal and acceptable for Defendants, i.e., less than 0.5%, and that the tires performed well.

**Test Certificate and Tabby**

Each roll delivered to the Defendants contained a Test Certificate (also referred to as a "COA") which reported the roll numbers and the results of testing the physical properties of the rolls for the values stated on the Original Specification, and contained a "tabby"/piece of the fabric from the roll which the Defendants could use for testing the physical properties at their facility.

**SRF's Requests for Fabric Testing**

From the outset of their relationship, even after the Defendants had qualified the Dubai, India plant to produce the Nylon 6 material, the Plaintiff requested (trial exhibit

15) that the Defendants send the results of the testing of the fabric at their facility for the parties to see the difference in their lab measurements to correlate the labs. The Defendants resisted doing so, asserting that tire performance information was confidential. *See e.g.* trial exhibits 16, 18, 19, 24-26. After pressing the issue, the Defendants in September of 2011 (trial exhibit 32) provided some lab correlation information, but the Court specifically finds that this was not a statistically valid correlation of the labs. The Court also finds from these trial exhibits that the Defendants knew no statistically valid correlation of the labs had been made. Lastly, the Court finds from the trial exhibits that the Defendants never told the Plaintiff the Defendants were incapable of testing shrinkage and other values on the Original Specification, and the Court finds the Defendants gave the Plaintiff the impression that the Defendants' lab could test for shrinkage and the other values on the Original Specification.

**Qualification of Thailand Plant Goods Required**

In late 2012 the Plaintiff's supplier, SRF, decided to close its Dubai plant and move production of Nylon 6 tire cord fabric to Thailand. When the Plaintiff notified the Defendants in 2013 that the Dubai facility was closing and production would be consolidated with another facility in Thailand, the Plaintiff asked if the Thailand Plant had to be qualified as a producer for the goods. The Defendants responded in the affirmative, and the process began of qualifying the Thailand facility to produce Defendants' goods.

**Testing of Thailand Baby Roll**

To qualify the Thailand Plant with the Defendants, on February 18, 2013, SRF produced a small Thailand roll—called a "baby roll"—of the Nylon 6 material. The purpose of the baby roll was for testing. SRF tested the material characteristics of this baby roll in its laboratory in Thailand.

Although the baby roll was found to meet most of Defendants' material specifications, the shrinkage percentage stated by the Plaintiff for the Thailand baby roll did not fall within the data point range of shrinkage of the Defendants' Original Specification (trial exhibit 5).

The shrinkage for the material tested in SRF's Thailand laboratory, was 8.5%. That exceeded the 5.0%–8.0% range of Defendants' Original Specification.

SRF sent a piece of the Thailand baby roll to be retested in its Dubai laboratory. The two plants had different machines and production environments. SRF's Dubai laboratory tested that material as having a shrinkage value of 7.57%, which fell within Defendants' Original Specification range of 5.0%–8.0%.

The Plaintiff then sent the baby roll in April of 2013 to Defendants' Chemist Galen Brooks in Clinton, Tennessee, for approval and qualification of the Thailand Plant as a producer of the goods.

Along with the Thailand baby roll, SRF and the Plaintiff sent Defendants the Test Certificate/COA (trial exhibits 50-56). The Test Certificate stated the results of the tests

conducted in Plaintiff's Thailand laboratories, including showing the 8.5% shrinkage result that exceeded the Defendants' Original Specification parameter.

Next to the shrinkage test results is an asterisk which refers to a footnote. Quoted as follows, the footnote refers to the baby roll being tested in the Dubai Lab, and then refers to a "correlation" between the Defendants' lab and the Plaintiff's Dubai lab, and ends with the Plaintiff's "expectation" that the test results in the customer lab would be acceptable.

> Shrinkage—We have tested the sample at [Dubai] Lab & the results are in line with current supplies from [Dubai]. Based on the correlation established with Carlisle vs [Dubai] lab, we expect the results to be recording within specification at customer lab.

**Defendants Qualifying of Thailand Plant**

The baby roll was delivered to Galen Brooks in the Clinton, Tennessee plant in April of 2013 (trial exhibit 60).

The evidence at trial was clear that it was Defendants' decision whether to approve the Thailand Plant to produce the goods. The proof established that Defendants' Chemist, Galen Brooks, was given the duty to inspect and test the baby roll for the determination of whether the Thailand Plant qualified to produce the goods. In that respect trial exhibits 60-76 show that both parties had agreed and believed that Mr. Brooks was analyzing the baby roll in the Clinton lab for the Defendants to make the

decision whether the Thailand Plant would qualify as a supplier for Defendants of the Nylon 6 fabric.

As found above, along with delivery of the baby roll, was the Test Certificate from the Plaintiff. On its face the Test Certificate notified the Defendants that the shrinkage was nonconforming to the Defendants' Original Specification (trial exhibit 5). The shrinkage value plainly stated was 8.5—outside the parameter of the Original Specification.

There also was the footnote which related to shrinkage value which stated that the Plaintiff **expected** that the result to be at the Defendants' lab within specification, "Based on the correlation established with Carlisle vs. [Dubai] lab, we expect the results to be recording within specification at customer lab." This information on the baby roll Test Certificate, however, went unnoticed by the Defendants' tester, Mr. Brooks.

Testifying by deposition, Mr. Brooks stated that he overlooked the fact that the 8.5% shrinkage data point fell outside of Carlstar's 5.0%–8.0% shrinkage specification. Mr. Brooks also testified that he did not notice the footnote addressing the shrinkage test result.

Mr. Brooks testified that because he trusted the Plaintiff and its suppliers, he expected the data reported on the Test Certificate to conform to Defendants' specifications, as had the hundreds of previous Test Certificates the Plaintiff had sent to Defendants over the years on product from the Dubai Plant.

The Court finds, however, that this explanation does not provide an excuse or justification for Mr. Brooks' oversight. The qualification of the Thailand Plant was a different undertaking from the more ministerial signing off on goods produced at an approved facility. The Defendants had assigned Mr. Brooks the important duty of analyzing the baby roll which duty required him to at least review the accompanying Test Certificate if not study it. This he did not do.

The proof established that there were several distractions and other events demanding Mr. Brooks' attention besides qualifying the Thailand Plant. Around the time that Defendants received the Thailand baby roll, Defendants began attempting to use reclaimed rubber in their tires. This process was time consuming and delayed Mr. Brooks' testing tires using the Thailand baby roll for several weeks. During these weeks the baby roll sat in the Clinton plant in the Tennessee humidity because Mr. Brooks did not have the time to test it. Another distracting event was that in July of 2013, the Defendants' business was for sale.

At this same time that the baby roll was delivered to Defendants in April of 2013, the Plaintiff's supplier, SRF, was in the process of closing the Dubai plant. When there were delays by the Defendants in communicating whether the Thailand Plant was approved to produce the goods, the Plaintiff was able to extend the time of the closure of SRF's Dubai plant to August 2013, but not beyond that. During this time Plaintiff was the Clinton plant's only supplier of Nylon 6 fabric.

**Blistering in Testing Baby Roll**

Trial exhibits 68 and 75 show that when Galen Brooks tested the Thailand fabric for qualification during tests in June and July, it showed extensive blistering. These trial exhibits show that Galen Brooks communicated the presence of excessive blistering to other employees of Defendants in charge of supplies from the Plaintiff. Offers by Plaintiff to send more fabric to test (trial exhibit 69) were declined by Defendants.

**Qualification of Goods to be Produced in Thailand**

With time running out on the closure of the Dubai plant, four months having passed since the baby roll had been delivered to the Clinton, Tennessee facility, and although tests on the baby roll by the Defendants were producing blistering, Galen Brooks qualified the Thailand Plant to produce the goods (trial exhibits 81-83). The qualification provided by Mr. Brooks is trial exhibit 81. The document contains the following material evidence.

— The Product Evaluation acknowledges that its purpose is to "determine if the processing and final product from the Thailand plant was equivalent to the material produced in the India plant."

— The Product Evaluation noted that excessive sidewall blisters were experienced when used in Defendants' manufacturing process.

— The Product Evaluation concludes the "SFR Thailand plant is approved."

The qualification report is reproduced as follows.

Product Evaluation

TO: Procurement DATE: 9/10/13
FROM: G. Brooks ITEM: 65524, 65526
CC: J. Sprow, K. Taylor, B. Bledsoe

SUBJECT: SRF Fabric from Thailand production facility

PURPOSE: To qualify material from Thai plant and deem equivalent to material from India plant

DETAILS: SRF is moving their production facility from India to Thailand, and prior to the transition being complete, they sent in two baby rolls each of 65524 and 65526 for evaluation. The goal was to determine if the processing and final product from the Thailand plant was equivalent to the material produced in India. The fabric was built into 889335 to check for issues in curing, and 889351 to use for tire tests. The Thailand material was equivalent to the India material within instrumental error. It was noted that more sidewall blisters were observed than is normally seen in either SKU. This was attributed to moisture gassing off of the fabric due to the overseas airfreight and long product qualification process. The SRF Thailand plant is approved for codes 65524 and 65526.

Mixing Instructions: N/A
Mixing Comments by: N/A
Date: N/A

Extrusion Instructions: N/A
Extrusion Comments by: N/A
Date: N/A

Calendar Instructions: N/A
Calendar Comments by: N/A
Date: N/A

Tire Assembly Instructions: N/A
Tire Assembly Comments by: N/A
Date: N/A

Curing Instructions: N/A
Curing Comments by: N/A
Date: N/A

CHECKLIST FOR PRODUCT APPROVAL

Code Name: 65524, 65526 Date 3-2-16
Supplier: SRF Fabric Reporter _____ Exhibit #14
Purchase Spec Issued: Yes Case _____
Approved by: Galen Brooks Deponent Brooks

This foregoing evidence is significant and is used *infra* in finding the Defendants accepted nonconforming goods. The significance is that this Product Evaluation by Galen Brooks and the baby roll with its accompanying Test Certificate establish the Defendants, through Galen Brooks and his communications to other Defendants' employees, knew or should have known the goods were nonconforming for two reasons. First, the 8.5% shrinkage value stated on the baby roll Test Certificate was clearly outside of and in excess of the 8.0% cap stated in the Original Specification. In addition Galen Brooks and others at Defendants' facility who were in charge of supplies from the Plaintiff were aware of the excessive blistering, since Mr. Brooks' qualification report of the Thailand Plant noted the presence of excessive sidewall blisters and he reported these results to the other Defendants' employees involved with the Plaintiff's supplier. The proof established that with these circumstances, the Defendants did not assert nonconformity of the goods, nor did the Defendants attempt alternatives such as accepting Plaintiff's offer to send additional samples for more testing. With time running

out on the closure of the Dubai plant, Defendants' then only supplier of Nylon 6 rubber, the Defendants qualified the Thailand Plant to produce goods for the Defendants.

**Forecasted Material Ordered By Defendants, Fabric Manufactured and Shipped**

After the approval of the Thailand Plant for production upon issuance of Galen Brooks' Product Evaluation, in September of 2013 Defendants provided Plaintiff with a forecasted amount of material that Defendants would need in the next quarter, and Plaintiff agreed to supply it.

The Court finds that that price, once agreed upon, was a material term that could not be changed regardless of whether the price of the raw materials rose or fell during the quarter. This forecasting agreement was in accordance with the parties' course of dealing and performance from the beginning of their relationship in 2010 where Defendants issued the forecasted amount and required safety stock amount on a quarterly basis, and Plaintiff relied on and Defendants intended they rely on, that forecasted amount as binding. The material manufactured by SRF was custom-made for Defendants and had no other uses.

Thus, as of September 2013, the proof established that the parties had agreed to the material terms of the contract: (1) the price, (2) the quantity, and (3) the quality specifications of the Nylon 6. The course of dealing and performance of the parties recognized the existence of a contact before any PO was issued or any Nylon 6 material

was ever shipped to Defendants, and this was consistent with the parties' previous course of dealing and performance.

**Thailand Plant Begins Production**

After Defendants qualified the Thailand Plant, the Plaintiff began manufacturing the goods in its Thailand Plant in October 2013. Galen Brooks sent to Plaintiff's employee an email that the reported test values from the Thailand baby roll were acceptable, and he did not believe there would be any detrimental effects with the new Thailand Nylon 6.

**Release of Goods Through POs and More Orders**

In the performance of the contract, Defendants provided Plaintiff, through the POs, with the specific release requests for certain crate quantities and delivery times that it required for those quantities. On December 31, 2013, Defendants placed an order with Plaintiff for thirty-six (36) rolls of 840/2 denier Nylon 6 material. The Plaintiff delivered the rolls, and the Defendants paid for all thirty-six (36) rolls of this material which were delivered in four (4) separate shipments on January 9, 2014, January 15, 2014, January 22, 2014, and January 28, 2014. Ten (10) of the thirty-six (36) rolls covered by PO 673238 were the last of the material manufactured in SRF's plant in Dubai. The remaining twenty-six (26) rolls covered by PO 673238 were the first rolls shipped to Defendants from SRF's Thailand Plant. Just like on the baby roll, the Test Certificates

for the twenty-three Thailand rolls stated on their face shrinkage values which exceeded the Defendants' Original Specification parameter for shrinkage.

With the first release of crate shipments from the Plaintiff's warehouse in January 2014, Galen Brooks reviewed the accompanying Test Certificates and put a checkmark by each one to certify the values. The shrinkage values were checked by Mr. Brooks, (trial exhibits 87 and 88), indicating approval, and those values were in excess of the 8.0 shrinkage parameter of the Original Specification. Defendants chose not to follow their usual qualification procedures of first testing a baby roll then subsequently testing full production rolls.

The Defendants then placed an order (PO 673417) for an additional sixty-four (64) rolls of 840/2 denier material. The Plaintiff delivered eight rolls of the material covered by PO 673417 on February 6, 2014. These eight (8) rolls were from Plaintiff's Thailand Plant and six of them stated a shrinkage value on the Test Certificate exceeding the parameter of the Original Specification.

**Blistering in Production**

In January 2014, the Defendants experienced a large spike in the percentage of blistering in tires. The blistering, they assert, was the result of the goods manufactured in SRF's Thailand Plant. By this time, though, the Plaintiff, in reliance on the qualification of the Thailand Plant and orders by the Defendants for forecasted goods starting in the

Fall of 2013, had ordered, shipped, stored and had begun supplying to the Defendants the goods in issue for which Defendants have not paid.

**Chart of Goods—Appendix**

As is outlined in the Appendix, orders were made by the Defendants in the end of 2013 into 2014, including forecasted goods. The goods in dispute relate to PO 673417 and goods that were forecasted. Although the *Complaint* refers to other POs, payment for those is not disputed and is relevant only in terms of the amount of credit to be allocated to the Defendants against Plaintiff's recovery. Provided in the Appendix is a chart prepared in ruling on summary judgment showing the different categories of goods.

**Alleged Rejection of Nonconforming Goods**

In February 2014, the parties exchanged several emails regarding "the defects that Carlisle is experiencing with the fabric produced in Thailand." The Defendants assert that their February 2014 email cancellation of PO 673417 constitutes an effective rejection of nonconforming goods. The email states, "Open PO's 19232 & 19723 that must be canceled and not shipped until there is a resolution to this problem." After that, Defendants issued no more purchase orders and refused to pay for the quarterly forecasted goods which had been obtained by Plaintiff and were in storage.

In the ensuing months, the parties ran tests but were unable to determine a definite cause for the blistering. Some of the goods were repurposed, and the parties explored a

good-faith resolution, but for most of the goods there was no repurposing or resolution. A year later this lawsuit was filed.

**Findings that Goods Were Nonconforming**

Applicable Law

With respect to whether goods are nonconforming, Tennessee Code Annotated section 47-2-106(2) provides, "Goods or conduct including any part of a performance are 'conforming' or conform to the contract when they are in accordance with the obligations under the contract." This definition has been explained as not just quantity and quality of goods, but the totality of performance by the contract.

> 'Nonconformity cannot be viewed as a question of the quantity and quality of goods alone, but of the performance of the totality of the seller's contractual undertaking. [Cit.]' *Irrigation Motor etc. Co. v. *529 Belcher,* 29 Colo.App. 343, 347, 483 P.2d 980, 9 UCC Rep. Serv. 60 (1971). 'The concept of nonconformity 'includes not only breaches of warranties but also any failure of the seller to perform according to his obligations under the contract.' [Uniform Commercial Code § 2–714, Comment 2.]' *Ford Motor Credit Co. v. Harper,* 671 F.2d 1117, 1122 (8th Cir.1982).

*Esquire Mobile Homes, Inc. v. Arrendale*, 182 Ga. App. 528, 528–29, 356 S.E.2d 250, 252 (1987).

Application of Law

Applying this law to the facts of the case, the Court finds that the greater weight and preponderance of the evidence is that the goods in issue were nonconforming for two reasons.

First, the parties' agreement was that the shrinkage value of the goods must conform to a 5.0% to 8.0% range of the Original Specification. Yet, the baby roll and the subsequent production rolls stated on the face of each Test Certificate that they did not fit within this range and did not conform to this shrinkage value.

In addition to the stated nonconforming shrinkage values, there was proof of the excessive blistering Defendants experienced when they tested the baby roll and used the Thailand production rolls. The Court accredits and gives great weight to the expert testimony of Defendants' expert, Dr. Fleming, who testified that the Plaintiff's Thailand tire cord fabric is the likely cause of the blistering.

Dr. Fleming's qualifications are that he is Principal Engineer for Caulfield Engineering, LLC, and is an experienced mechanical engineer specializing in engineering analysis and accident investigation for vehicles and other machines. He is a consultant for accident investigation and reconstruction, failure analysis, design review and evaluation of products, and machinery and product testing. Dr. Fleming has a Ph.D. in theoretical and applied mechanics studying reliability and fracture mechanics, and a B.S. degree in mechanical engineering. Dr. Fleming is also an Adjunct Professor of Mechanical Engineering at Northwestern University, where he teaches finite element analysis. He is a licensed professional engineer in the state of Illinois and a member of the American Society of Mechanical Engineers (ASME) and Society of Automotive Engineers (SAE).

Dr. Fleming gave the following expert opinions.

1. The initial nylon cord material 840/2 which Carlstar received from S&V showed an average shrinkage of at least 8.32%, which is above the allowable limit of 8.0%.

* * *

5. The increased shrinkage of nylon cord material likely resulted in an increased shrinkage stress in the tire as it was being cured. The increased shrinkage stress can result in blister formation if the nylon fibers overcome the adhesive strength between the rubber and the nylon.

6. The increased shrinkage of the nylon cord material likely also resulted in an increased resistance of the tire to the pressure from the rubber bladder which was pressurizing the inside of the tire during the time in the mold. The increase resistance to the bladder pressure likely reduced the ability of the bladder to press gas bubbles inherent in the manufacturing process out of the rubber.

7. Increased nylon shrinkage will likely result in increased shrinkage stress at the nylon-rubber interface.

8. Carlstar reported that they were able to manufacture tires if the inner layer was constructed from the nylon cord with shrinkage exceeding specification and the outer cords constructed from nylon cord with shrinkage with in specification. Implementation of this scenario into the submodel showed that the strain energy was reduced by 20% using this procedure.

Trial Exhibit 262.

The Court places greater weight on Dr. Fleming's opinion than the observations of Plaintiff's witness Dr. Roop Bhakuni because Dr. Fleming demonstrated in his testimony contradictions, speculation and lack of support in Dr. Bhakuni's testimony. The Court also places more weight on Dr. Fleming's opinion that the expert opinions expressed by

Plaintiff's experts, Mr. McKee and Ms. Simonelli, because they do not have the advanced academic training, teaching experience and testing and analysis experience Dr. Fleming has, and because on cross examination Ms. McKee's observations of alleged poor maintenance, equipment and operation in the Clinton, Tennessee, plant were shown not to be present and/or had plausible explanations, and Ms. Simonelli's testimony about statistical correlations was significantly impeached.

Accrediting Dr. Fleming's testimony that the excessive blistering was likely due to the out-of-spec shrinkage values of the Thailand goods, the Court finds the goods in issue were nonconforming.

**Defendants' Acceptance of Nonconforming Goods**

Applicable Law

Tennessee law provides the following with respect to acceptance or rejection of goods.

TENN. CODE ANN. § 47-2-606

(1) Acceptance of goods occurs when the buyer:

> (a) after a reasonable opportunity to inspect the goods signifies to the seller that the goods are conforming or that he will take or retain them in spite of their nonconformity; or
>
> (b) fails to make an effective rejection (§ 47-2-602(1)), but such acceptance does not occur until the buyer has had a reasonable opportunity to inspect them; or

> (c) does any act inconsistent with the seller's ownership; but if such act is wrongful as against the seller it is an acceptance only if ratified by him.
>
> (2) Acceptance of a part of any commercial unit is acceptance of that entire unit.

* * *

Rejection under section 47-2-602 and acceptance under section 47-2-606 are related in the sense that the statute provides that one way acceptance can occur is upon failure to make an effective rejection. Under Tennessee law, "[a]cceptance occurs when the buyer, after a reasonable opportunity to inspect the goods, signifies to the seller that the goods are conforming or that he or she will retain them in spite of their nonconformity, or fails to make an effective rejection, or does any act inconsistent with the seller's ownership. Tenn. Code Ann. § 47–2–606." *Audio Visual Artistry v. Tanzer*, 403 S.W.3d 789, 806 (Tenn. Ct. App. 2012).

> Although Article 2 does not define 'rejection,' the authors of a leading treatise on the UCC state that, '[s]omewhat simplified, rejection is a combination of the buyer's refusal to keep delivered goods and his notification to the seller that he will not keep them.' 1 James J. White and Robert S. Summers, Uniform Commercial Code 388 (3rd ed., 1988). To be effective, a rejection 'must be within a reasonable time after…delivery or tender.' T.C.A. 47-2-602(1). In general terms, an effective rejection terminates a buyer's obligations under the contract, except for the duty to hold the rejected goods with reasonable care at the seller's disposition. 'Acceptance,' on the other hand, arises when the buyer, after a reasonable opportunity to inspect the goods, 'signifies to the seller that the goods are conforming or that he will take or retain them in spite of their nonconformity.' T.C.A. 47-2-606(1)(a).

*Schroder v. Plus Mark, Inc.*, No. 03A01-9411-CH-00400, 1995 WL 140727, at *4 (Tenn. Ct. App. Mar. 31, 1995).

Defendants' Actions Signifying Acceptance of Nonconforming Goods

Applying the foregoing law to the facts as found above, the Court finds that the following actions of the Defendants constitute acceptance of nonconforming goods, including that through the shrinkage values on the Test Certificates of each roll, the Defendants knew or should have known of the nonconformity.

— After a fulsome four months opportunity to inspect and test the baby roll, and being provided information about the excessive shrinkage values measured at the Thailand Plant on the Test Certificate accompanying the baby roll, and after seeing in their own facility that blistering/nonconformity was occurring, the Defendants communicated to the Plaintiff/seller in September of 2013 that, despite the nonconformity, the Thailand Plant was approved by the Defendants to produce their goods.

— Following approval of the Thailand Plant, as of September 2013, the Defendants placed orders for the goods and agreed to the material terms of the contract of price, quantity and qualifications of the Thailand fabric.

— On December 31, 2013, Defendants placed an order with Plaintiff for thirty-six (36) rolls of 840/2 denier Nylon 6 material. The Plaintiff delivered the rolls, and the Defendants paid for all thirty-six (36) rolls of this material delivered in four (4) separate shipments on January 9, 2014, January 15, 2014, January 22, 2014, and January 28, 2014. Ten (10) of the thirty-six (36) rolls covered by PO 673238 were the last of the material manufactured in SRF's plant in Dubai. The remaining twenty-six (26) rolls covered by PO 673238 were the first rolls shipped to Defendants from SRF's Thailand Plant. Noted on the Test Certificates were that the value stated for shrinkage of the twenty-three Thailand rolls exceeded the Defendants' Original Specification parameter for shrinkage.

— With the first release of crate shipments from the Plaintiff's warehouse in January 2014, Galen Brooks reviewed the accompanying test certificates for the Thailand rolls and put a checkmark by each one to certify the values. The shrinkage values were checked by Mr. Brooks indicating approval, and those values were in excess of the 8.0 shrinkage parameter of the Original Specification. (trial exhibits 87 and 88). Defendants chose not to follow their usual qualification procedures of first testing a baby roll then subsequently testing full production rolls.

— The Defendants then placed an order (PO 673417) for an additional sixty-four (64) rolls of 840/2 denier material. The Plaintiff delivered eight rolls of the material covered by PO 673417 on February 6, 2014. These eight (8) rolls were from Plaintiff's Thailand Plant and six of them stated a shrinkage value of the Test Certificate exceeding the parameter of the Original Specification.

In finding that the above conduct constitutes acceptance of nonconforming goods, the Court finds that the reasonable time for rejection of the goods being ordered was in September 2013 when Galen Brooks issued his Product Evaluation on the baby roll and the Defendants approved production of the goods at the Thailand Plant. The Court dismisses the Defendants' position that the time for reasonable rejection was in February 2014 as the POs were issued on the Thailand goods. This determination that the reasonable time for rejection was in September 2013 in connection with the baby roll and approval of the Thailand Plant derives from the parties' course of dealing and course of performance in agreeing to a price, quantity and specification of an advance forecast of goods. Those findings of fact are provided below in more detail.

The ramifications of the finding that the reasonable time for rejection was in September 2013 are far-reaching in this case, establishing that the Defendants accepted

nonconforming goods and are liable for the forecasted goods in issue, and that the elements of revocation of acceptance are not present in this case.

First are the findings and conclusions of law that the reasonable time for rejection was in September 2013 in connection with the baby roll and Thailand Plant production and not in February 2014 related to PO issuance.

**Rejection Not Present**

Applicable Law—Reasonable, Seasonable Rejection

TENN. CODE ANN. § 47-2-602

> (1) Rejection of goods must be within a reasonable time after their delivery or tender. It is ineffective unless the buyer seasonably notifies the seller.

In addition to this statute, the following case law provides an explanation of rejection by the buyer. It explains that the requirements of a "reasonable time" and "seasonable" notice for rejection are designed to "minimize the parties' aggregate economic loss . . . and give the seller the opportunity to take protective action . . . ."

> The contract between the contractor and the supplier is a transaction in goods and is, therefore, governed by the sales article of the Uniform Commercial Code [Tenn. Code Ann. §§ 47-2-101 through 47-2-725 (1979) ]. Under the U.C.C., a buyer has a positive duty to accept goods that conform to the contract. *Flowers Baking Co. of Lynchburg v. R-P Packaging, Inc.*, 229 Va. 370, 329 S.E.2d 462, 467 (1985). However, if the goods or the tender of delivery[6] fail to conform to the contract, Tenn. Code Ann. § 47-2-601 (1979) permits the buyer (a) to reject the goods, (b) to accept the goods, or (3) to accept any commercial unit and reject the rest.
>
> FN 6. Tenn. Code Ann. § 47-2-503(1) (1979) described a "tender of delivery" as putting and holding conforming goods at the buyer's disposition and giving reasonable notice to enable the buyer to take delivery.

> Tenn. Code Ann. § 47-2-602(1) (1979) requires the buyer to reject nonconforming goods 'within a reasonable time after their delivery or tender' and to 'seasonably" notify the seller of its decision. These requirements are designed to minimize the parties' aggregate economic loss. *J.L. Teel Co. v. Houston United Sales, Inc.*, 491 So.2d 851, 860 (Miss.1986). They also give the seller the opportunity to take protective action like withdrawing the goods and tendering conforming goods, proposing a cure, or beginning negotiations to settle the dispute. *Intervale Steel Corp. v. Borg & Beck Div., Borg-Warner Corp.*, 578 F.Supp. 1081, 1086 (E.D.Mich.1984), *aff'd*, 762 F.2d 1008 (6th Cir.1985); 1 J. White & R. Summers, *Uniform Commercial Code* § 8-3, at 406 (3d ed. 1988); 3 W. Hawkland, *Uniform Commercial Code Series* § 2-602:02 (1984 & 1986 Supp.).

*Henley Supply Co. v. Universal Constructors, Inc.*, No. 88-238-II, 1989 WL 31620, at *5 (Tenn. Ct. App. Apr. 7, 1989).

PO Terms—Parties' Positions

In support of its claim of rejection, the Defendants assert that each of the POs issued for delivery of the goods is a separate contract of the parties and that the terms of each PO governs that order. The Defendants assert that the timing and actions necessary to effectively reject and not accept nonconforming goods was triggered by issuance of each PO when the Plaintiff released the manufactured goods to the Defendants. The Defendants assert they successfully rejected nonconforming goods in February of 2014 when they halted release of product after they had experienced excessive blistering.

The Plaintiff disputes that each PO constitutes a contract and disputes that the terms governing the sale are limited to the written terms contained on and incorporated into the POs. Plaintiff's President Mahesh Douglas testified that the POs were simply

instructions from Defendants for releases of inventory in the warehouse in specific quantities for specific times. Plaintiff's position is that each new purchase order was not a new contract between the parties, but, instead, was merely the way in which the larger contract between the parties was performed. Thus, the Plaintiff's position is that the parties' contract consisted not only of the PO terms but also the parties' course of performance and dealing.

In support of their position, the Defendants cite to the Inspection/Nonconforming Shipments Integration and Modification provision of paragraphs 7 and 30 of the CTP Global terms, incorporated into the PO terms, quoted as follows.

> (7) Inspection / Non-Conforming Shipments: Payment for Products delivered hereunder or acceptance of delivery will not constitute acceptance by CTP of such Products. CTP may inspect 100% or a sample of Products, at CTP's option and may reject all or any portion of a shipment of CTP determines a Product to be defective or nonconforming. Products rejected and Products supplied in excess of quantities called for under an Order may be returned to Seller at Seller's expense. CTP will not be required to make any payment for such Products.
>
> (8) Warranty: Seller warrants that all Products shall: (a) conform to all CTP specifications…, (c) be free from defects in design, workmanship and materials…, [and] (f) be merchantable and fit for the intended purpose…."
>
> * * *
>
> (30) Integration and Modification: The Agreement constitutes the entire agreement between CTP and Seller with respect to the Products and Services, and supersedes any prior agreements, understandings, representations and quotations with respect thereto. No modification hereof will be of any effect unless in writing and signed by the party to be bound thereby.

The Defendants also cite to Tennessee Code Annotated section 47-2-202, the UCC Statute of Frauds.

The Defendants' argument is that other evidence of the parties' course of dealing and performance is inadmissible as prior or contemporaneous, oral evidence which contradicts the written PO terms.

Applicable Law

Under Tennessee Code Annotated sections 47-2-202, parol evidence of the terms of the sale is excluded only if it is clear that written terms constitute the final expression of the parties.

> § 47-2-202. Final written express; parol or extrinsic evidence
>
> Terms with respect to which the confirmatory memoranda of the parties agree or which are otherwise set forth in a writing **intended by the parties as a final expression of their agreement** with respect to such terms as are included therein may not be contradicted by evidence of any prior agreement or of a contemporaneous oral agreement but may be explained or supplemented [emphasis added]:
>
> > (a) By course of performance, course of dealing or usage of trade, pursuant to § 47-1-303; and
> >
> > (b) By evidence of consistent additional terms unless the court finds the writing to have been intended also as a complete and exclusive statement of the terms of the agreement.

Moreover, under section 47-2-209, if the parties attempt to modify a contract's terms but fail to meet the requirements of the statute of frauds, section 47-2-209(4)

provides that the parties attempt at modification or rescission can still operate as a valid waiver of contract terms:

> § 47-2-209. Modification, rescission and waiver
>
> (1) An agreement modifying a contract within this chapter needs no consideration to be binding.
>
> (2) A signed agreement which excludes modification or rescission except by a signed writing cannot be otherwise modified or rescinded, but except as between merchants such a requirement on a form supplied by the merchant must be separately signed by the other party.
>
> (3) The requirements of the statute of frauds section of this chapter (§ 47-2-201) must be satisfied if the contract as modified is within its provisions.
>
> **(4) Although an attempt at modification or rescission does not satisfy the requirements of subsection (2) or (3) it can operate as a waiver** [emphasis added].
>
> (5) A party who has made a waiver affecting an executory portion of the contract may retract the waiver by reasonable notification received by the other party that strict performance will be required of any term waived, unless the retraction would be unjust in view of a material change of position in reliance on the waiver.

Further, consistent with the foregoing, section 47-1-303(f) provides that "[s]ubject to § 47-2-209, a course of performance is relevant to show a waiver or modification of any term inconsistent with the course of performance." TENN. CODE ANN. § 47-1-303(f) (West 2018). As explained in section 47-1-303:

> (a) A "course of performance" is a sequence of conduct between the parties to a particular transaction that exists if:
>
> > (1) The agreement of the parties with respect to the transaction involves repeated occasions for performance by a party; and

(2) The other party, with knowledge of the nature of the performance and opportunity for objection to it, accepts the performance or acquiesces in it without objection.

(b) A "course of dealing" is a sequence of conduct concerning previous transactions between the parties to a particular transaction that is fairly to be regarded as establishing a common basis of understanding for interpreting their expressions and other conduct.

(c) A "usage of trade" is any practice or method of dealing having such regularity of observance in a place, vocation, or trade as to justify an expectation that it will be observed with respect to the transaction in question. The existence and scope of such a usage must be proved as facts. If it is established that such a usage is embodied in a trade code or similar record, the interpretation of the record is a question of law.

(d) A course of performance or course of dealing between the parties or usage of trade in the vocation or trade in which they are engaged or of which they are or should be aware is relevant in ascertaining the meaning of the parties' agreement, may give particular meaning to specific terms of the agreement, and may supplement or qualify the terms of the agreement. A usage of trade applicable in the place in which part of the performance under the agreement is to occur may be so utilized as to that part of the performance.

(e) Except as otherwise provided in subsection (f), the express terms of an agreement and any applicable course of performance, course of dealing, or usage of trade must be construed whenever reasonable as consistent with each other. If such a construction is unreasonable:

(1) Express terms prevail over course of performance, course of dealing, and usage of trade;

(2) Course of performance prevails over course of dealing and usage of trade; and

(3) Course of dealing prevails over usage of trade.

(f) Subject to § 47-2-209, a course of performance is relevant to show a waiver or modification of any term inconsistent with the course of performance.

> (g) Evidence of a relevant usage of trade offered by one party is not admissible unless that party has given the other party notice that the court finds sufficient to prevent unfair surprise to the other party.

TENN. CODE ANN. § 47-1-303 (West 2018).

Case law on this section explains that "[u]nder subsection (f), 'a course of performance is relevant to show a waiver or modification of any term inconsistent with the course of performance.' *Id.* § 47–1–303(f)." *Miller v. Driver*, No. 3:10-CV-0819, 2012 WL 2131230, at *8, n. 20 (M.D. Tenn. June 12, 2012). Additionally, "[w]hile buyers and sellers are normally free to make the buyer's obligation to pay depend upon the acceptance of the goods by a third party, *Can-Key Indus., Inc. v. Industrial Leasing Corp.*, 286 Or. 173, 593 P.2d 1125, 1128 n. 2 (1979), the time within which the goods must be accepted or rejected must remain reasonable in light of the parties' course of dealing, the usage of the trade, and the circumstances of the particular case. Tenn. Code Ann. §§ 47-1-204(2) (1979) & 47-1-205 (1979); *CMI Corp. v. Leemar Steel Co.*, 733 F.2d 1410, 1414 (10th Cir.1984); *Warren v. Guttanit, Inc.*, 69 N.C.App. 103, 317 S.E.2d 5, 11 (1984); *cf. Moore v. Howard Pontiac-American*, 492 S.W.2d 227, 229-30 (Tenn. Ct. App.1972) (revocation of acceptance)." *Henley Supply Co. v. Universal Constructors, Inc.*, No. 88-238-II, 1989 WL 31620, at *6 (Tenn. Ct. App. Apr. 7, 1989).

Commentators further explain that course of dealing, usage of trade and course of performance are relevant to interpret contract terms and may also constitute contract terms or override express terms.

> The agreement of the parties includes that part of their bargain that may be found in course of dealing, usage of trade, or course of performance. These

sources are relevant not only to the interpretation of express contract terms but may also themselves constitute contract terms. And these sources may not only supplement or qualify express terms but, in rare circumstances, may also even override express terms.

* * *

Course of performance differs from usage of trade. For example, a party can be chargeable with a usage of trade of which it is ignorant, but the same ignorance is normally a defense to a claim arising from course of performance. Conversely, § 1-303 makes clear that one party's awareness of another's conduct can be used as affirmative evidence of acquiescence to a course of performance that indicates that party's implicit consent to a particular interpretation of a contractual provision or acceptance of a modification to an express term. Usage of trade may shape a contract only if the usage is sufficiently pervasive to justify an expectation of incorporation. By definition, course of performance differs from course of dealing. For example, a course of dealing is a sequence of conduct between the parties prior to entering into a particular agreement whereas course of performance arises subsequent to entry into the agreement. While the difference appears clear, both courts and lawyers occasionally err.

What is the legal effect of course of dealing and one or more of its cohorts once proved? First, one or more may add to the express terms of the agreement. This may occur even where the contract is unambiguous and complete on its face.

* * *

Second, course of dealing, usage of trade, or course of performance may give particular meaning to the language of the agreement. Thus, each may contradict, supersede, or confirm the ordinary language of words used in an agreement. If the parties contract with reference to a trade usage that imports a meaning different from the ordinary lay meaning of words used, so much the worse for the lay meaning. The trade usage will control. For example, a deal for a ‘thousand rabbits’ may actually call for delivery of 1,200 rabbits.

Third, course of dealing and one or more of its cohorts may cut down or even subtract what would otherwise be whole terms of the express agreement of the parties. Section 1-303(d) of Article 1 says that course of dealing and usage of trade may ‘qualify’ the express terms of the

agreement. Thus, ‘delivery June-August’ may be qualified by trade usage to require deliveries spread through these three months rather than all at once. And 1-303(a) and (d) on course of performance are drafted broadly enough to allow for the same kind of effect. A major function of course of performance, together with the law of modification and waiver, is to help cut down or subtract express terms altogether. Section 1-303(f) says that a course of performance ‘is relevant to show a waiver or modification of any term inconsistent with the course of performance.’

Fourth, when course of dealing and its cohorts in some way become part of the agreement, they, like express terms, supersede or vary the effect of the contractually variable Code provisions that would otherwise govern. For example, an express contract disclaimer is not always required to disclaim the warranty of merchantability that section 2-314 ‘implies’ in contracts for sale of goods. Section 2-316(3)(c) makes plain that a usage of trade or course of performance or dealing can disclaim, too. On the other hand, a course of conduct may not override the writing requirement of 2-326.

Fifth, course of dealing and its cohorts may give meaning to terms of the agreement when the contract is formed through course of performance. The terms may be found in the writings exchanged between the parties, or they may be imposed simply by the parties' conduct, or some combination of these.

Sixth, course of dealing et al play additional, supplementary roles in defining contract terms.

* * *

Under Article 2, the provision that express terms control inconsistent course of dealing and its cohorts really cannot be taken at face value, at least in some courts. But course of dealing does override usage of trade, and course of performance overrides both course of dealing and usage of trade as is now made explicit in 1-303(e). Course of dealing between the parties is ‘closer’ to their expectations than general trade usage and should prevail over it.

* * *

As we have already seen, the parol evidence rule should not be a hurdle so long as the conduct merely explains rather than contradicts the writing. Although the parol evidence bars the introduction of extrinsic evidence in

> order to construe the terms of a fully integrated agreement, evidence of course of performance, usage of trade, and course of dealing is admissible regardless of whether the contract contains an effective merger clause. The admissibility of evidence of course of performance differs from that of the latter two, however, in that the parol evidence rule bars contradictory evidence solely from any prior or contemporaneous oral agreement.

1 *White, Summers, & Hillman*, Uniform Commercial Code § 4:3 (6th ed.) (West 2018) (footnotes omitted).

Findings that PO Terms Not Full, Final Expression

Applying the foregoing law, the Court finds that the PO terms, cited to and quoted above, at page 27, were not intended to be the full, final expression of the terms of the sale, and/or that the terms of the POs are explained and supplemented, and/or were waived by the parties' course of dealing and performance. The evidence established through the testimony of Mahesh Douglas, Plaintiff's President; the testimony of Virginia Stefanko, Plaintiff's Customer Service Representative; and trial exhibits 57, 61, 64, 79, 80, 85, 103, 120, 130, 150, 190, 191, that the parties' course of dealing and performance over the course of the years was that the Plaintiff purchased the tire cord manufactured by SRF, took title to the material in the United States on behalf of Defendants, and then released that material to Defendants in smaller amounts, on somewhat of an "on-call" basis. The amount of tire cord Plaintiff ordered from SRF was based on a binding quarterly forecasted amount of material that Defendants provided to Plaintiff, and that as part of their agreement, the Plaintiff was required to maintain the forecasted amount of inventory in its warehouse at all times. This arrangement enabled Defendants to obtain

the exact amount of tire cord needed in a given week with very short notice instead of Defendants having to order the tire cord directly from SRF many months in advance.

The proof established that in the normal course of dealing, Defendants issued a forecast to Plaintiff of Defendants' expected use of tire cord for the upcoming three-month period, and the Plaintiff, relying on that forecast, obtained and paid for the requested material from SRF, then held the material for Defendants until it was needed.

The benefits to the Defendants were reduction of Defendants' total cost of ownership of the tire cord by taking title to the tire cord when it left the port of origin, Plaintiff stocking the tire cord in its warehouse, and Plaintiff paying SRF for the tire cord and releasing it to Defendants with as little as five-days' notice. In addition to the reduction in lead-time for obtaining the tire cord, this course of dealing also provided Defendants with the benefit of freeing up cash flow.

The Court therefore finds that the terms of the sale in this case are not limited to the PO terms. Accordingly, the Court finds that the time for effective rejection by Defendants was not in 2014 upon issuance of the POs, as asserted by the Defendants, but in September 2013 when the baby roll was being used to qualify the Thailand Plant and the Nylon 6 custom-made goods were forecasted for the upcoming quarter.

In finding that the reasonable, seasonable time for rejection was September 2013 in connection with approval of the baby roll and Thailand Plant, the Court also finds that this approval incorporated the specifications of the Thailand baby roll as the agreed upon

template for the production of all future supplies of Nylon 6 tire cord fabric to be supplied to Defendants by SRF.

Based upon the above findings of fact and conclusions of law that the parties' course of dealing and performance are taken into account as the terms of their contract, the Court finds that approval of the Thailand baby roll by the Defendants with the Galen Brooks Product Evaluations in September 2013, ordering by the Defendants of forecasted goods, and Galen Brooks' approval of the first release of goods produced in Thailand and the other actions of the Defendants found by the Court at pages 22-23 constitute ineffective rejection and signify acceptance of nonconforming goods. The evidence established that it was the Defendants who controlled the situation since they were the ones who determined whether or not to qualify the Thailand Plant. The Defendants knew of the nonconformity and made the decision not to investigate further, probably because of time constraints, and the Defendants took the risk of proceeding. The Court therefore dismisses Defendants' defense to liability for payment of PO 673417 that each PO is a separate contract on which Defendants exercised their right of rejection.

Forecasted Goods Ruling

As to the forecasted goods—POs 673417, 673418, 673419—they, as well, are found by the Court to be nonconforming based upon the above findings. Yet, they, as well, are found by the Court to have been accepted and ineffectively rejected based on the above findings.

With respect to the Defendants' additional defense to payment for the forecasted goods that the terms and conditions of the parties' relevant purchase order contracts clearly and unambiguously disclaim Defendants liability for forecasted goods, the Court also dismisses that defense.

In the December 20, 2016 summary judgment ruling, the Court concluded that the following term was part of and incorporated into the POs covering the forecasted goods:

> (3) Forecasts and Product Shortages: Any forecast provided by CTP is non-binding and not a commitment by CTP to purchase such quantities of the Product unless otherwise agreed upon between the Seller and Buyer.

The Court affirms its summary judgment finding that the POs covering the forecasted goods incorporated the "CTP Transportation Products, LLC Global Terms and Conditions," quoted above, including that forecasting by the Plaintiff was nonbinding and not a commitment.

The Court further finds, however, that the greater weight and preponderance of the evidence is that the POs were not intended to be the parties' final written expression of the terms of the sale and/or the terms of the POs are explained and supplemented, and/or waived by the parties' course of dealing and performance.

As found above, the Court finds from the testimony of Mahesh Douglas, Plaintiff's president, that the Plaintiff has established that the Forecasting Disclaimer provision of the POs was not the final written expression of the Sale. The Court accredits the testimony of Mahesh Douglas and finds the proof established the following facts.

— The parties understood and agreed that Defendants were responsible for all inventories in the warehouse and inventories in transit, based

on the forecasts and particularly evidenced by the control Defendants had over the amount of inventory that Plaintiff kept at its warehouse—including the requirements for additional "safety stock" and that these were custom made goods.

— The parties understood that the POs were simply instructions from Defendants for the release of certain crate quantities at certain times. The vast majority of the parties agreement was performed by S&V well before any POs were issued for crate quantities of material—as S&V has already procured, paid for, and SRF had already manufactured the custom Nylon 6 tire cord.

— The contract for the amount of inventory and the price at which Defendants would pay for it were set months before the issuance of any POs, as were the agreed upon material specifications for the Nylon 6 product that Defendants were purchasing. Both parties conducted themselves as if the forecasted amounts were binding—with Defendants penalizing Plaintiff for times when its inventory dipped below Carlisle's forecasted amounts.

— Without the prior agreement about the amount of inventory, Defendants would simply be issuing a PO for material that they could not confirm was in the warehouse which would jeopardize its ability to keep its production lines running.

The Court, therefore, dismisses Defendants' defense to liability for payment of forecasted goods that the POs are each separate contracts and that their terms disclaim liability for forecasted goods.

**Revocation Not Present**

Applicable Law

Under Tennessee Code Annotated section 47-2-608 for revocation of acceptance to apply, the evidence must show that the buyer's failure to discover the nonconformity

was because acceptance was reasonably induced either by difficulty of discovery before acceptance or by the seller's assurances.

TENN. CODE ANN. § 47-2-608

> (1) The buyer may revoke his acceptance of a lot or commercial unit whose nonconformity substantially impairs its value to him if he has accepted it:
>
> > (a) on the reasonable assumption that its nonconformity would be cured and it has not been seasonably cured; or
> >
> > (b) without discovery of such nonconformity if his acceptance was reasonably induced either by the difficulty of discovery before acceptance or by the seller's assurances.
>
> (2) Revocation of acceptance must occur within a reasonable time after the buyer discovers or should have discovered the ground for it and before any substantial change in condition of the goods which is not caused by their own defects. It is not effective until the buyer notifies the seller of it.
>
> (3) A buyer who so revokes has the same rights and duties with regard to the goods involved as if he had rejected them.

In this regard, the Defendants' defense is that the Test Certificate for the baby roll made it difficult for them to discover nonconformity and assured the Defendants the Thailand produced goods would conform to the Original Specification. This position is based upon the asterisk footnote on shrinkage of the Test Certificate (trial exhibits 50-56), which Defendants assert indicated that a statistical lab correlation and ASTM testing standards had been performed by the Plaintiff which turned out not to be true. From this the Defendants assert difficulty of discovery by them and assurances by the Plaintiff were present.

The basis for this defense is found in the Defendants' Original Specification (trial exhibit 5). It refers to Standard ASTM-D to correlate labs. Section 5.1.1 of ASTM D-885 describes the statistical procedure to be followed to establish a bias or correlation between two different laboratories.

> If there are differences of practical significance between reported test results for two laboratories (or more), comparative tests should be performed to determine if there is a statistical bias between them, using competent statistical assistance. As a minimum, test samples should be used that are as homogenous as possible, that are drawn from the material from which the disparate test results were obtained, and that are randomly assigned in equal numbers to each laboratory for testing. Other materials with established test values may be used for this purpose. The test results from the two laboratories should be compared using a statistical test for unpaired data. If a bias is found, either its cause must be found and corrected, or future test results must be adjusted in consideration of the known bias.

With this ASTM in mind, the Court sees that the footnote on the Test Certificate sent with the baby roll refers to three labs. The first reference is to the Plaintiff's Dubai laboratory and its Thailand laboratory. The second reference is to the Plaintiff's Dubai laboratory and Defendants' Clinton laboratory. The footnote is quoted again, as follows:

> Shrinkage—We have tested the sample at [Dubai] Lab & the results are in line with current supplies from [Dubai]. Based on the correlation established with Carlisle vs [Dubai] lab, we expect the results to be recording within specification at customer lab.

The proof established that the reference to the Plaintiff's Thailand laboratory and its Dubai laboratory was the -0.93% arithmetic difference between a single shrinkage test result (8.5%) on the Thailand baby roll tested in the Thailand laboratory and the result of a single test on the same baby roll tested in the Dubai laboratory.

The proof established that the second reference to the Plaintiff's Dubai laboratory and the Defendants' Clinton laboratory was the -0.4% arithmetic difference between the average shrinkage percentage of nine (9) rolls tested by Plaintiff's Dubai laboratory (7.8%) and the single unknown roll that was tested by Scott Wyatt in the Clinton laboratory in response to Ram Krishnan's repeated requests (7.4%).

As testified to by Defendants' experts, Jerry Leyden and Jason Babcock, and accredited by the Court, these were not the kind of statistical correlation that is required by ASTM D-885 to create a comparison between laboratories with respect to ASTM D-885 testing.

> 2. There is no meaningful correlation between the Nylon cord shrinkage test results measured at the two SFR manufacturing facilities and Carlstar's Clinton, TN, plant. To properly establish an interlaboratory correlation, equal numbers of homogenous samples must be tested at each lab, each lab must be capable of conducting the test to the proper standard, and enough samples must be tested to provide a statistically meaningful distribution. None of these were followed.

Trial Exhibit 262, Defendants' Expert Report.

The significance of these findings is that because the Plaintiff did not establish scientifically valid correlations among the Plaintiff's Thailand laboratory, its Dubai laboratory, and the Defendants' Clinton laboratory, these correlations are not proof that the goods produced in the Thailand Plant were conforming to the Original Specification.

Nevertheless, this is not dispositive. Even though the ASTM standard was not adhered to by Plaintiff in the testing, that is not material because the proof showed the

Defendants had their own knowledge of material facts of the nonconformity of the material. The evidence establishes that the Defendants were not "reasonably induced either by the difficulty of discovery before acceptance or by the seller's assurances" so as to revoke under Tennessee Code Annotated section 47-2-608.

First, there is the proof that Galen Brooks testified he did not see, note or rely upon either the clearly stated excessive shrinkage value or the footnote in the baby roll Test Certificate.

Additionally, the reference on the baby roll Test Certificate to the Defendants' lab and the Dubai labs is unavailing for the Defendants because, as found above, the proof established that the Plaintiff had tried unsuccessfully to correlate those labs, and the Defendants were well aware of and refused to do so as seen in trial exhibits 16, 18, 19, 24-26, 32.

Further, the baby roll Test Certificate is transparent in recording and showing that the shrinkage value of the baby roll exceeds the Original Specification, and then states in the footnote only that the Plaintiff **expects** the results to record within specification at the Customer lab. The context of the footnote is significant. As found above, the Plaintiff believed the Defendants would qualify and test for shrinkage in their lab, and that Galen Brooks was performing that testing in the Clinton lab to qualify the Thailand Plant to produce the goods.

Further significant is that the Defendants experienced blistering in their own testing of the baby roll. The nonconformity surfaced in the Defendants' lab before the

Defendants qualified the Thailand Plant in September 2013 to produce the goods (trial exhibits 60-76) and agreed to accept nonconforming goods.

There are also facts of motivation. Added to the facts of blistering the Defendants experienced before they qualified the Thailand Plant is that the Defendants were under time pressure to qualify the Thailand Plant because the Dubai plant was closing.

Further, the proof established that the Defendants had other pressures and distractions of the sale of Defendants' business and attempting to reclaim rubber in its manufacturing process.

All of these facts show independent knowledge and motivation on the Defendants' part and no misleading by the footnote or difficulty of discovery before acceptance occurred in September 2013 with the approval of the Thailand Plant.

In addition to the footnote on the baby roll certificate and subsequent production rolls, another basis asserted by Defendants for revocation was a fire at the Thailand Plant in August 2013. The Defendants assert that when they approved the Thailand Plant to manufacture the goods in September 2013 they did not know about the August 2013 fire and that would have made a difference in the qualification process. The Court dismisses this defense for lack of proof. Nowhere in the Defendants' experts report is the fire and its impact on producing the goods analyzed for the Court. Without such expert assistance, the Court is unable to determine whether this event would have been a valid reason for revocation of acceptance.

Thus, the Court finds there was not present either difficulty of discovery of the nonconformity by Defendants before they accepted nor were the Defendants induced to accept by the Plaintiff's assurances or difficulty of discovery. The Defendants' defense of revocation fails.

Under these circumstances, it is not necessary for a finding on the other element of revocation: substantial impairment. For completeness, however, the Court shall make those findings.

The second element required to establish revocation under section 47-2-608 is that the shrinkage nonconformity of the Thailand goods "substantially" impaired the value of the goods to the Defendants, as explained in the following three cases.

> — Tenn. Code Ann. § 47-2-608's central requirement is that the defects must substantially impair the value of the item to the purchaser. With regard to the 'substantial impairment' test, this Court has recognized that:
>
> > Cases in other jurisdictions have held that substantial impairment of value within the meaning of U.C.C. § 2-608(1) exists when the nonconformities in the goods are such that they shake the buyer's faith in the ability of the goods to perform the function for which they were purchased.

*Haverlah v. Memphis Aviation, Inc.*, 674 S.W.2d 297, 304 (Tenn.App. 1984).

> — While it is true that Tenn. Code Ann. § 47-2-608 creates a subjective test in the sense that the requirements of a particular buyer must be examined and deferred to, the evidence with regard to the substantial impairment to a particular buyer must be measured in objective terms. Welch v. Fitzgerald-Hicks Dodge, Inc., 121 N.H. 358, 430 A.2d 144, 148 (1981) and Kenn v. Modern Trailer Sales, Inc., 40 Colo. App. 527, 578 P.2d 668, 670 (1978). See also J. White & R. Summers, Handbook of the Law Under the Uniform Commercial

> Code § 8-3, at 261 (1972). Thus, the 'substantial impairment' requirement should be construed to exclude attempted revocations based upon trivial defects or defects that can be easily repaired. Dickson v. U-J Chevrolet Co., 454 So.2d 964, 967 (Ala. 1984); Colonial Dodge, Inc. v. Miller, 121 Mich.App. 466, 328 N.W.2d 678, 680 (1980); Freeman Oldsmobile Mazda Co. v. Pinson, 580 S.W.2d 112, 114 (Tex.Civ.App. 1979); Conte v. Dwan Lincoln-Mercury, Inc., 172 Conn. 112, 374 A.2d 144, 148 (1976); and Rozmus v. Thompson's Lincoln-Mercury Co., 209 Pa.Super. 120, 224 A.2d 782, 784 (1966).

*Harper v. Mitchell*, No. 85-97-II, 1985 WL 4040, at *2 (Tenn. Ct. App. Dec. 4, 1985).

> — Of course, this argument overlooks Trinity's reason for its argument, but the fact remains that the cause of the collapse was relevant to McKinnon's revocation of acceptance defense. Although McKinnon steadfastly disclaims that its ability to revoke its acceptance depends on the cause of the collapse, we can see no other evidence of a revocation of acceptance prior to the collapse. *See* Tenn. Code Ann. § 47–2–608(2). Therefore, the only hope McKinnon had to sustain its revocation defense was a finding that the defects in the steel caused the bridge to collapse. Only by establishing the fact that the defects in the steel caused the substantial change in condition could McKinnon sustain its right to revoke its acceptance. The trial judge had announced that requirement months in advance of the trial, again in ruling in McKinnon's motion in limine, and at several places in the lengthy trial itself. We think Dr. Hill's evidence was proper and sustains the trial judge's finding on why the bridge collapsed.

*Trinity Indus., Inc. v. McKinnon Bridge Co.*, 77 S.W.3d 159, 179 (Tenn. Ct. App. 2001) *abrogated by Bowen ex rel. Doe v. Arnold*, No. M201500762SCR11CV, 2016 WL 5491022 (Tenn. Sept. 29, 2016).

Applying the foregoing case law, with respect to substantial value impairment, the Court makes the following findings from the testimony of Defendants' witness, Joel Sprow, the Engineer Services Manager in the Clinton Plant who was also in charge of

internal quality. Using trial exhibit 279, Mr. Sprow testified that the blister rate on PO 673417 was unacceptably high and tires had to be scrapped. Mr. Sprow further testified that the toll on the Clinton Plant from using the Thailand material when it had a 60% scrap rate over the course of one week amounted to $900,000 loss in gross revenue and $135,000 loss of net profit. He also testified that the blister rate in January and February was 50 to 100%. In his 10 years working for the Defendants, he has never experienced this elevated a blister scrap rate. From this testimony the Court finds that the nonconformity of the Thailand material substantially impaired the value of the goods.

This finding of substantial impairment, however, is not outcome determinative. That is because the finding above—of the Defendants not being induced by either difficulty of discovery before acceptance or by Plaintiff's assurances, and knowingly accepting nonconforming goods—precludes the defense of revocation.

The summation of the foregoing findings of fact and conclusions of law is that the greater weight and preponderance of the evidence is that the Defendants breached the parties' contract and are liable for payment of the goods in issue because they accepted nonconforming goods and grounds for revocation are not present.

**Damages**

Based upon the damages testified to by the Plaintiff and established in trial exhibits 100, 102, 106, 108, 110, 115, 122, 125, 133, 259, and itemized in trial exhibit

278, the Court finds that the total amount of damages awarded to the Plaintiff is $1,069,075.87. This total amount consists of:

- Total Nylon 6 Amount Still Owed $892,199.41
- Warehousing Costs $32,684.20 Storage from March 2014–December 2015
- Interest on Material-Phase I $41,001.00 as of 31 May 2015
- Interest on Material-Phase II $103,191.26 Interest at 3.25% S&V Rates for 25 months (1 June 2015 to 31 October 2017
- Total $1,069,075.87

In addition, pursuant to paragraph 27 of the CTP Transportation Products, LLC Global Terms and Conditions (trial exhibit 117) of the parties' contract, the Plaintiff, as "the prevailing party is entitled to . . . a reasonable sum for their attorney's fees in such litigation," which shall be determined as ordered above.

*s/ Ellen Hobbs Lyle*
ELLEN HOBBS LYLE
CHANCELLOR
TENNESSEE BUSINESS COURT
PILOT PROJECT

cc by U.S. Mail, email, or efiling as applicable to:
Jay S. Bowen
Lauren Kilgore
Brigid Carpenter
Perry W. Miles
Derek H. Swanson
George B. Davis