

Tremco Incorporated

1451 Jacobson Avenue • Ashland, Ohio 44805 • 419-289-2050

TREMCO

May 11, 2007

1.1

Mr. Jose Archila
YKK AP America
332 Firetower Road
Dublin, GA 31021

RE: YHS 50 FS

Dear Mr. Archila:

E2-0083 / TR-6096E is made of 60 +/-5 Durometer Dense EPDM. This rubber extrusion material has been tested in accordance with ASTM C 864, Option II specifications. The die drawing and spec data sheet for this material is attached for your reference.

E2-0088 / TR-6151E is made of Closed-Cellular EPDM. This rubber extrusion material has been tested in accordance with ASTM C 509, Option II specifications. The die drawing and spec data sheet for this material is attached for your reference.

Laboratory test results for the above-mentioned materials are attached for your reference.

Sincerely,

Eric Tango

Eric Tango

CC: Jim Stewart

**"Progress Through Innovation, Technology
and Customer Satisfaction"**



1.8

August 26, 2002

AKRON RUBBER DEVELOPMENT LABORATORY, INC.
2887 Gilchrist Road • Akron, Ohio 44305
1-800-830-ARDL • (330) 794-6600 • FAX (330) 794-6610
Website: www.ardl.com • E-mail: info@ardl.com

TREMCO PART # 3162

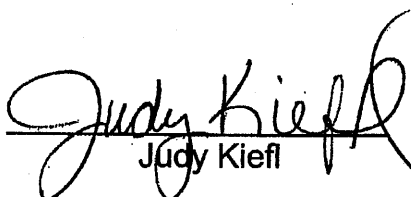
- TEST REPORT -

PN# 49424A

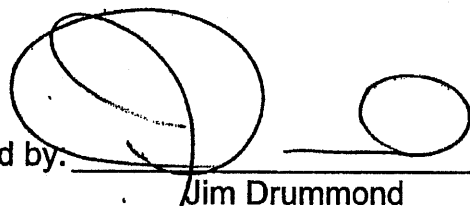
Prepared for:

Mr. John Wegman
Tremco, Inc.
1451 Jacobson Avenue
Ashland, Ohio 44805

Prepared by:


Judy Kiefl

Approved by:


Jim Drummond



AN A2LA ACCREDITED LABORATORY
MEMBER OF ACIL: THE ASSOCIATION OF INDEPENDENT SCIENTIFIC,
ENGINEERING AND TESTING FIRMS

ISO 9001 Registered



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Page 1 of 2- PN# 49424A

August 26, 2002

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Tremco, Inc.
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Ashland, Ohio 44805

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SUBJECT: Physical testing on material submitted by the above company.

RECEIVED: Five (5) slabs and six (6) compression buttons identified as WJT 7523.

ORIGINAL PHYSICAL PROPERTIES, ASTM D 412-98a, D 2240-02
Die C dumbbells tested at 20 in/min.

	<u>RESULTS</u>	<u>REQUIREMENTS</u>	<u>PASS/FAIL</u>
Shore A Durometer, points	63	60 ± 5	Pass
Tensile Strength, psi	1800	1600 min.	Pass
Ultimate Elongation, %	560	250 min.	Pass

HEAT-AGED PROPERTIES, ASTM D 573-99
Specimens aged 70 hrs. @ 100°C in a forced air oven.

	<u>RESULTS</u>	<u>REQUIREMENTS</u>	<u>PASS/FAIL</u>
Durometer, point change	+5	+10 max.	Pass
Tensile Strength, % change	-6.9	-15 max.	Pass
Elongation, % change	-31.2	-40 max.	Pass

COMPRESSION SET, ASTM D 395-98, METHOD B
Specimens aged 22 hrs. @ 100°C, 25% deflection, ½ hr. recovery.

	<u>RESULTS</u>	<u>REQUIREMENTS</u>	<u>PASS/FAIL</u>
Compression Set, %	18.1	30 max.	Pass

August 26, 2002

Mr. John Wegman
Tremco, Inc.

1.10

OZONE RESISTANCE, ASTM D 1149-99

Test specimens per ASTM D 518-99, Method A

Specimens exposed 100 hrs. @ 100 pphm @ 40°C, 20% elongation.

Observations made at 7x magnification.

<u>RESULTS</u>	<u>REQUIREMENTS</u>	<u>PASS/FAIL</u>
No cracks	No cracks	Pass

LOW TEMPERATURE BRITTLENESS, ASTM D 2137-94(00), METHOD A

Five modified T-50 specimens conditioned 3 min. @ -40°C in methanol, then tested per Para. 9.3.2.

<u>RESULTS</u>	<u>REQUIREMENTS</u>	<u>PASS/FAIL</u>
No cracks	No specimen shall crack	Pass

TEAR RESISTANCE, ASTM D 624-00, DIE C

Specimens tested at 20 in/min.

	<u>RESULTS</u>	<u>REQUIREMENTS</u>	<u>PASS/FAIL</u>
Tear Strength, ppi	165	150 min.	Pass

STAINING OF SURFACE, ASTM D 925-88(00), METHOD B

Procedure: ½" x 1" specimens exposed 48 hrs. ten inches below a 275 W, type RS UV bulb

Test Surface: White Automotive Grade Enamel

<u>RESULTS</u>	<u>REQUIREMENTS</u>	<u>PASS/FAIL</u>
No migration stain	No migration stain	Pass

Judy Kiehl

Project Technician

AKRON RUBBER DEVELOPMENT LABORATORY, INC.

Jim Drummond

Physical Testing Manager

V# 49424A

JJD/sc



1-11

August 11, 2004

To Our Valued Customers:

On August 5, 2004, PolyOne Corporation completed the divestiture of our Elastomers and Performance Additives business to an investor group led by Lion Chemical Capital and ACI Capital. The name of our new entity is Excel Polymers, LLC.

We remain committed to the rubber compounding, performance additives and rolls businesses. The entire team and the existing manufacturing facilities will continue to serve your needs. We are very excited about operating our business as an independent company. With the support of our new owners and improved financial stability, we are in a position to create long term growth and value for you. This will be a refreshing change for our customers, suppliers and associates.

Our goal is to make this transition as transparent as possible to you. We are not changing the people with whom you interface on a daily basis, the ERP system, nor any of the quality systems which support our business.

Our mission at Excel Polymers will be to cultivate an environment that focuses on you, the customer. In the current environment of high inflation, raw material shortages and mounting global competitiveness, our primary purpose is to protect your franchise and to help you compete more effectively. The world expects more speed, doing more with less every day and innovation to create continued growth. Simply put, we must wake up every day with a "can do" attitude.

For the last 10 months, we've been focused on supporting your business as well as going through the sale process. In addition, we have supported our global customers with new operations in China and the United Kingdom. Our full energies are now driven to ensure our mutual success. We want to take this opportunity to thank you for your continued support and loyalty during this period.

Excel Polymers is a customer-driven business. We appreciate your business and look forward to doing great things together.

Sincerely,

A handwritten signature in dark ink, appearing to read "John E. Quinn".

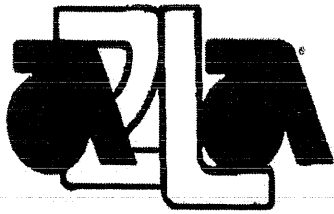
John E. Quinn
President and CEO

A handwritten signature in dark ink, appearing to read "Ron Chase".

Ron Chase
V.P. Compounding Sales

A handwritten signature in dark ink, appearing to read "Steve Nieto".

Steve Nieto
V.P. Specialty Products



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**THE AMERICAN
ASSOCIATION
FOR LABORATORY
ACCREDITATION**

ACCREDITED LABORATORY

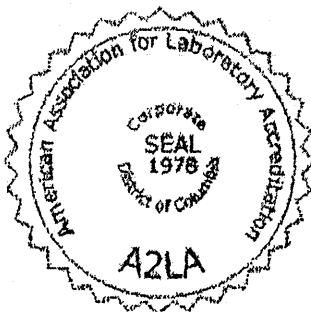
A2LA has accredited

EXCEL POLYMERS, LLC
Burton, OH

for technical competence in the field of
Mechanical Testing

The accreditation covers the specific tests and types of tests listed on the agreed scope of accreditation. This laboratory meets the requirements of ISO/IEC 17025 - 1999 "General Requirements for the Competence of Testing and Calibration Laboratories" and any additional program requirements in the identified field of testing.

Presented this 27th day of July 2005.



A handwritten signature in black ink, appearing to read 'Peter Abney'.

President
For the Accreditation Council
Certificate Number 0121.01
Valid to June 30, 2007
Revised May 9, 2007

For tests or types of tests to which this accreditation applies,
please refer to the laboratory's Mechanical Scope of Accreditation.

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SCOPE OF ACCREDITATION TO ISO/IEC 17025-1999

EXCEL POLYMERS, LLC
BURTON DEVELOPMENT LABORATORY
14330 Kinsman Road
Burton, OH 44021-0366
Lynn McIntyre Phone: 440 834 5539

MECHANICAL

Valid To: June 30, 2007

Certificate Number: 0121.01

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following automotive tests on rubber:

✓ ASTM D297	Specific Gravity (Section 16.3)
ASTM D395	Rubber Property - Compression Set (Part B)
✓ ASTM D412	Rubber Properties in Tension (Strength, Modulus & Elongation)
✓ ASTM D471	Rubber Property - Effect of Liquids
ASTM D518	Rubber Deterioration - Surface Cracking
ASTM D573	Rubber Deterioration in an Air Oven
ASTM D575	Rubber Properties in Compression
ASTM D624	Rubber Property - Tear Resistance
ASTM D865	Rubber Deterioration by Heating in Air (Test Tube Enclosure)
ASTM D925	Rubber Property - Staining of Surfaces (Methods A & B)
ASTM D1149	Rubber Deterioration - Surface Ozone Cracking (Flat Specimens)
ASTM D1171	Rubber Deterioration - Surface Ozone Cracking (Triangular)
ASTM D1229	Rubber Property - Compression Set at Low Temperatures
✓ ASTM D1646	Viscosity & Vulcanization Characteristics (Mooney Viscometer)
✓ ASTM D2084	Rubber Property - Vulcanization (Oscillating Disk Cure Meter)
ASTM D2137	Rubber Property - Brittleness Point
ASTM D2240	Rubber Property - Durometer Hardness (Shore A)
ASTM D2632	Rubber Property - Resilience (Vertical Rebound)
✓ ASTM D5289	Rubber Property - Vulcanization (Moving Die Cure Meter)

Burton Development Laboratory

Test Method 01001 Procedures for Mixing Compounds and Preparing Vulcanized Sheets



..... Development Lab Test Report

1.14

Project Number:**Originator:** BILL TOTH**Customer:** TREMCO**Compound:** WJT-5559 #4 *SAP 3163***Date:** 3/15/02**BDC Number:** 11420**Attn:** JOHN WEGMAN**Specification:** C-509

PolyOne Elastomers Development Laboratory

14330 Kinsman Road PO Box 366

Burton, OH 44021-0366

	SPECIFICATION	RESULT
D1056: Compressive Modulus: Cured Stk 25% Compression Modulus	13 - 24 PSI	18
D395-98, Method B; (2-PLY) 22 HRS. @ 70°C	30% MAX	28.7%
D865-99 Test Tube Aging 70 HRS @ 100°C 25% Compression Modulus % LENGTH CHANGE	0/+10 PSI	3 -0.7%
D471-98 Fluid Immersion in H2O 24 HRS @ 23°C % WEIGHT CHANGE	5%	3.3%
Low Temperature Brittleness Flex FLEX IN JIG PER ASTM C-509	NO CRACKS	PASS
Ozone D1149-99; Conditioned for 24 HRS before exposure SAMPLES STRAINED 40% TESTED 100 HRS @ 40°C & 100mPA OF OZONE	NO CRACKS	PASS
Stain: D925-88-B; No migratory stain allowed		PASS

Development Lab Test Report

(Burton A2LA)

Effective Date: 8/17/2001

Page 1 of 3



..... Development Lab Test Report

1.15

Project Number:

Originator: BILL TOTH

Customer: TREMCO

Compound: WJT-5559 #4

Date: 3/15/02

PolyOne Elastomers Development Laboratory

14330 Kinsman Road PO Box 366

Burton, OH 44021-0366

Technician:

Burt Hurst

DATE: 3/23/02

Chemist:

Bill Toth

DATE: 3/25/02

Development Lab Test Report

(Burton A2LA)

Effective Date: 8/17/2001

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