

Product Description

A high-performance thermoplastic vulcanizate (TPV) designed to survive exposure to 150°C (300°F) air, oil and greases. Specifically designed for blow molded (mono or dual-layer) automotive air ducts and boots/bellows.

Composition

TPV based on polyacrylate elastomer dynamically vulcanized in a matrix of polyamide (nylon) plastic.

Key Features

- Excellent heat resistance (repeated short-term exposure to 150°C; 190°C softening point).
- Excellent resistance to many mineral + synthetic motor oils, transmission fluids, and greases.
- Low temperature performance to -40°C.
- Bondable to polyamides via overmolding (insert and 2-shot), hot-plate welding, and co-extrusion.
- Optimized for large-scale blow molding processes (conventional extrusion; co-extrusion; 3D; suction; sequential).

Product Characteristics

Physical Form	Free-flow pellets
Color	Black
Packaging	50 lbs (22.7 kg) moisture-barrier bags

Physical Properties	Nominal Values	Test Method
Density - Specific Gravity	1.10	ASTM D792
Durometer (Type A, 15 sec)	95 Points	ASTM D2240
Tensile Strength at Break	13 MPa (1885 psi)	ASTM D412
Elongation at Break	200%	ASTM D412
Tensile Stress @ 100% Elongation	9 MPa (1305 psi)	ASTM D412
Low Temperature		
Gehman, T10	-45°C	ASTM D1053
Brittle Point	-44°C	ASTM D2137
Melt Temperature	220°C (428°F)	--

Heat and Oil Aging Properties	Nominal Values
<i>Properties After 168h, 150°C (300°F) -- Air</i>	
- Tensile Strength, Change:	0%
- Elongation at Break, Change:	-35%
- Hardness, Change:	-3 Points
<i>Properties After 168h, 150°C (300°F) -- SF105 Oil</i>	
- Tensile Strength, Change:	+20%
- Elongation at Break, Change:	-20%
- Hardness, Change:	-1 Points
- Volume Change:	+1%

Product Notes

Values noted above are for injection molded samples. **Values are typical properties and should not be construed as specifications.**

Zeotherm is a registered ® trademark of Zeon Chemicals L.P.

This technology is protected by one or more United States Patent.

Processing Statement

Zeotherm can be processed using thermoplastic blow molding or extrusion equipment. Zeotherm should be dried in a desiccant dryer prior to use. Processing guidelines for Zeotherm and instructions for handling of purged material can be found on-line at: www.zeotherm.com/processing. Zeotherm can be readily recycled -- both in-process and post-consumer.

SAE Line Callout (Tentative)

SAE J2558 TPV (A35435 BS2490 DA92 EO351351D EL175 F40 SGC1120 TMA7 TS11)

Please contact Zeon's offices prior to finalizing an automotive specification based on this callout.

For Additional Information

Phone: 800.735.3388 / +1 502.775.2000

Email: zeotherm@zeonchemicals.com

Web: www.zeotherm.com

Revision History

Revised: 30-July-2007

**ZEON CHEMICALS L.P.**

4111 Bells Lane, Louisville, KY 40211 USA Phone 502.775.2000 Fax 502.775.2025

The information contained herein is believed to be reliable, but no representations, guarantees or warranties of any kind are made as to its accuracy, suitability for particular applications or the results to be obtained therefrom. The information is based on laboratory work with small-scale equipment and does not necessarily indicate end product performance. Because of the variations in methods, conditions and equipment used commercially in processing these materials, no warranties or guarantees are made as to the suitability of the products for the applications disclosed. Full-scale testing and end product performance are the responsibility of the user. Zeon Chemicals L.P. shall not be liable for and the customer assumes all risk and liability of any use or handling of any material beyond the direct control of Zeon Chemicals L.P. The SELLER MAKES NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OR MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. Nothing contained herein is to be considered as permission, recommendation, nor as an inducement to practice any patented invention without permission of the patent owner.