

Product Description

A high-performance thermoplastic vulcanizate (TPV) designed to survive long-term exposure to 150°C (300°F) air and oil. Ideal for automotive and industrial applications where there is exposure to heat and/or oil.

Composition

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

Key Features

- Excellent heat resistance (sustained at 150°C / 300°F; spikes to 175°C / 350°F).
- 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).
- Lowest durometer in Zeotherm 100-series TPV family.
- Optimized for thermoplastic injection molding processing.

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	1.15	ASTM D792
Durometer (Type A, 15 sec)	75 Points	ASTM D2240
Tensile Strength at Break	8 MPa (1160 psi)	ASTM D412
Elongation at Break	200%	ASTM D412
Tensile Stress @ 100% Elongation	5 MPa (725 psi)	ASTM D412
Compression Set (70h, 125°C, Method B - Buttons)	60%	ASTM D395
Low Temperature		
Gehman, T10	-35°C (-31°F)	ASTM D1053
Gehman, T100	-50°C (-58°F)	ASTM D1053
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:	-10%
- Elongation at Break, Change:	-20%
- Hardness, Change:	+3 Points
<i>Properties After 168h, 150°C (300°F) -- SF105 Oil</i>	
- Tensile Strength, Change:	+10%
- Elongation at Break, Change:	-30%
- Hardness, Change:	+3 Points
- Volume Change:	-4%

SAE Line Callout

SAE J2558 TPV (A35555 BS2470 DA75 EO351251D EL180 F40 SGC1127 TMA5 TS7)

UL Registrations

UL94HB (flammability) + UL746C (electrical) registered. For UL94HB compliance, the overmolded thickness must be >1.5mm.

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 conventional thermoplastic equipment for injection molding, extrusion or blow molding. Zeotherm should be dried in a warm desiccant dryer prior to use. Processing guidelines for Zeotherm can be found on-line at: www.zeotherm.com/processing. Zeotherm can be readily recycled -- both in-process and post-consumer.

For Additional Information

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Revision History

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