SILPLUS* 40 MP

ELASTOMER







Silplus 40 MP is a heat cured elastomer with outstanding processing capability. Silplus 40 MP heat cured elastomer when properly compounded and catalyzed may be considered for use in a wide variety of applications such as extrusion, molding and calendaring.

Key Features and Typical Benefits

- compounding simplicity
- good extrudability
- high mechanical properties
- good green strength
- easily blendable
- versatile

Potential Applications

Because of its outstanding properties, Silplus 40 MP heat cured elastomer is an excellent candidate to consider for use in most types of molding, extrusion and calendaring applications.

Typical Physical Properties			
Typical Properties of the Uncured Base Compound			
Appearance			Translucent
Density, 23°C	DIN 53 479 A	g/cm^3	1.12
Mooney Viscosity	DIN 53 523		
ML (4) 25°C		ME	25
Δ ML 0/ML4		ME	≤ 20
Typical Properties of the Vulcanized Rubber 100 (pbw) Silplus 40 MP heat cured elastomer with 0.4 (pbw) like 2,5-Dimethyl-2,5-di(tert.butylperoxy)hexane (100%). Vulcanization conditions: 10 min. @ 170°C.			
Hardness	DIN 53 505	Shore A	40
Tensile Strength	DIN 53 504 S2	N/mm^2	9
Elongation at Break	DIN 53 504 S2	%	750
Tear Strength	ASTM D 624 die B	N/mm	17
Compression Set (22 h @ 175°C)	ISO 815	%	18
Typical Properties of the Vulcanized Rubber 100 (pbw) Silplus 40 MP heat cured elastomer with 1.2 (pbw) bis-(2,4-dichlorobenzoyl)-peroxide (50%). Vulcanization conditions: 10 min. @ 120°C. Post cured: 4h @ 200°C.			
Hardness	DIN 53 505	Shore A	42
Tensile Strength	DIN 53 504 S2	N/mm^2	9
Elongation at Break	DIN 53 504 S2	%	560
Tear Strength	ASTM D 624 die B	N/mm	17

Typical data are average data and actual values may vary.
Typical data shall not be used as product specifications.

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Regulatory Compliance

BfR:

The ingredients are listed in the BfR recommendation XV "Silicones"(1)

FDA:

Compositionally Compliant with the requirements of 21 CFR 177.2600 – Rubber articles intended for repeated use and have been found, through testing of a representative sample, to meet the extractives limitations in 21 CFR 177.2600(e) and/or (f). - Note a

Biocompatibility:

A representative sample of Silplus 40 MP has passed USP Class VI (United State Pharmacopeia 32, National Formulary 27, 2009. <88> Biological Reactivity Test, In Vivo tests) and ISO 10993 (Part 6, 10, and 11) tests using Good Laboratory Practices (GLP). - Note b.

Flammability Test:

Listed as UL 94 HB (file No. E205753)

(1) Producer of the final article needs to test and confirm that the final product meets the extraction limits of BfR XV or corresponding EU legislation.

Note a: It is the responsibility of the user to determine that the final product complies with the extractive limitations and other requirements of 21 CFR 177.2600 under their specific manufacturing procedures.

Note b: Please contact Product Stewardship and Regulatory Group for details.

Packaging

Silplus 40 MP heat cured elastomer is available in 500 kg boxes.

General Instructions for Use

Various organic peroxides will vulcanize the compounding bases. Fabricators should select a curing agent based on the method of fabrication, desired properties and safety considerations. They are mixed into the rubber on a two-roll-mill, together with additives if necessary.

If the goods are to be vulcanized without pressure, *e.g.* in hot air or in an infrared radiation tunnel, bis-2,4-dichlorobenzoyl-peroxide (50%) is usually recommended. The dosage ranges from 1-2 parts (pbw) of cross-linking agent on 100 parts (pbw) of base compound. Good results have been achieved with a dosage of 1.5 parts (pbw). While the cross-linking agent is being incorporated, the temperature of the compound should not exceed 40°C to avoid scorch. Therefore the mixer or mill should always be well cooled.

To vulcanize goods in a press or in steam, dicumyl peroxide (95%) or 2,5-Dimethyl-2,5-di(tert.butylperoxy)hexane is generally recommended. Dicumyl peroxide crystals need to be melted in the rubber to become homogeneous and effective.

Patent Status

Nothing contained herein shall be construed to imply the nonexistence of any relevant patents or to constitute the permission, inducement or recommendation to practice any invention covered by any patent, without authority from the owner of the patent.

Product Safety, Handling and Storage

Customers considering the use of this product should review the latest Material Safety Data Sheet and label for product safety information, handling instructions, personal protective equipment if necessary, and any special storage conditions required. Material Safety Data Sheets are available at www.momentive.com or, upon request, from any Momentive Performance Materials representative. Use of other materials in conjunction with Momentive Performance Materials products may require additional precautions. Please review and follow the safety information provided by the manufacturer of such other materials.

Limitations

Customers must evaluate Momentive Performance Materials products and make their own determination as to fitness of use in their particular applications.

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Emergency Service

Momentive Performance Materials maintains an around-the-clock emergency service for its products.

Location	Emergency Service Provider	Emergency Contact Number
Mainland U.S., Puerto Rico	CHEMTREC	1-800-424-9300
Alaska, Hawaii	CHEMTREC	1-800-424-9300
Canada	CHEMTREC	1-800-424-9300
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Middle East	NCEC	+44 (0) 1235239671
Asia Pacific (except China)	NCEC	+44 (0) 1235239670
China	NCEC	+86-10-5100-3039
Latin America (except Brazil)	NCEC	+44 (0) 1235239670
Brazil	SOS Cotec	08000111767 or 08007071767
All other locations world wide	NCEC	+44 (0) 1235239670
At sea	Radio U.S. Coast Guard in U.S. waters NCEC in International waters	 +44 (0) 1235239670

For Health related calls, contact Momentive Performance Materials at +1-518-233-2500 (English only).

DO NOT WAIT. Phone if in doubt. You will be referred to a specialist for advice.

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