SILPLUS* 30 HS

ELASTOMER

Silplus 30 HS is a heat cured elastomer with very good mechanical and processing properties. Silplus 30 HS when properly compounded and catalyzed can be considered for use in a wide variety of applications such as extrusion, molding and calendaring.

Key Features and Typical Benefits

- excellent mechanical properties, in particular, high tear strength
- compounding simplicity
- good dielectric properties
- enhanced heat resistance
- versatile

Potential Applications

Because of its outstanding properties, Silplus 30 HS heat cured silicone is an excellent candidate to consider for use in most types of molding, extrusion and calendaring applications.

Typical Physical Properties

Typical Physical Properties of the Uncured Base Compound			
Appearance			Translucent
Density, 23°C	DIN 53 479 A	g/cm^3	1.10
Mooney Viscosity	DIN 53 523		
ML (4) 25°C		ME	22
D ML 0/ML4		ME	≤ 15
Typical Properties of the Vulcanized Rubber 100 (pbw) Silplus 30 HS with 0.25 (pbw) like 2,5-Dimethyl-2,5-di(tert.butylperoxy)hexane (100%). Vulcanization conditions: 10 min. @ 170°C, 4h 200°C.			
Hardness	DIN 53 505	Shore A	30
Tensile Strength	DIN 53 504 S2	N/mm^2	9
Elongation at Break	DIN 53 504 S2	%	1100
Tear Strength	ASTM D 624 die B	N/mm	30
Compression Set (22 h @ 175°C)	ISO 815	%	35
Typical Properties of the Vulcanized Rubber 100 (pbw) Silplus 30 HS with 0.8 (pbw) bis-(2,4-dichlorobenzoyl)-peroxide (50%). Vulcanization conditions: 10 min. @ 120°C. Post cured: 4h @ 200°C.			
Hardness	DIN 53 505	Shore A	30
Tensile Strength	DIN 53 504 S2	N/mm^2	8.4
Elongation at Break	DIN 53 504 S2	%	910
Tear Strength	ASTM D 624 die B	N/mm	32

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

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 30 HS 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.

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 30 HS 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 0.8-1.5 parts (pbw) of cross-linking agent on 100 parts (pbw) of base compound. Good results have been achieved with a dosage of 0.8 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. The American Chemistry Council (CHEMTREC) and CareChem24 International also maintain an around-the-clock emergency service for all chemical products:

Location	Momentive Performance Materials Products	All Chemical Products
Mainland U.S., Puerto Rico	518.233.2500	CHEMTREC: 800.424.9300
Alaska, Hawaii	518.233.2500	CHEMTREC: 800.424.9300
Canada	518.233.2500	CHEMTREC: 800.424.9300
Europe	+518.233.2500 (Albanian, Czech, Danish, Dutch, English, Finnish, French, German, Greek, Hungarian, Italian, Lithuanian, Norwegian, Polish, Portuguese, Romanian, Russian, Serbo-Croatian, Slovak, Spanish, Swedish, Turkish, Ukrainian)	+44.(0)208.762.8322 (UK)
Middle East, All countries, except Israel	+518.233.2500	+961.3.487.287 (Lebanon)
Middle East, Israel	+518.233.2500	+44.(0)208.762.8322 (UK)
Latin America, Asia/Pacific, all other locations worldwide	+518.233.2500	CHEMTREC: +1-703.527.3887 (collect)
At sea	Radio U.S. Coast Guard, which can directly contact Momentive Performance Materials at 518.233.2500 or CHEMTREC at 800.424.9300.	

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

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Worldwide Hotline

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