

Silopren\* HV 3/506

**Product Description** **Silopren HV 3/506** is a heat cure silicone rubber base compound, which is suitable for press-, injection-moulding, calandering and extrusion. The particular feature of this base compound is its effectively increased heat resistance giving outstanding resistance to high temperature applications.

- Key Performance Properties**
- very good heat resistance up to 300 ° C
  - easily blendable

**Typical Product Data**

<b>Typical Properties of the Uncured Base Compound:</b>			
Appearance			translucent
Density	DIN 53 479 A	g/cm <sup>3</sup>	1.15
Mooney viscosity	DIN 53 523		
ML (0) 25 ° C		ME	65
ML (4) 25 ° C		ME	45
<b>Typical Properties of the Vulcanized Rubber:</b>			
100 pbw. Silopren HV 3/506 with 1.5 pbw bis-(2,4-dichlorobenzoyl)-peroxide* (50 %) Vulcanization conditions: 10 min. @ 120 ° C post cured: 6h @ 200 ° C in hot air			
hardness	DIN 53 505	Shore A	50
Tensile strength	DIN 53 504 S2	N/mm <sup>2</sup>	9.0
Elongation at break	DIN 53 504 S2	%	400
Tear strength	ASTM D 624 die B	N/mm	10
Rebound resilience	DIN 53 512	%	55
Compression set (22 h @ 175°C)	DIN 53 517	%	22
Volume resistivity	DIN IEC 93	ohm.cm	2.5· 10 <sup>16</sup>
Dielectric strength	IEC 243-1	kV/mm	24
Dielectric constant	IEC 250	(50 Hz)	2.9
Dissipation factor	IEC 250	(tan delta / 1000 Hz)	1.2· 10 <sup>-3</sup>

**Attention:**  
**Using other peroxides might result in different mechanical properties.**

Diacyl-peroxids like Di(2,4-dichlorobenzoyl)peroxide are non vinyl specific cross link peroxides (higher cross link density) Diaryl-peroxids like Dicumylperoxide or Dialky-peroxides like 2,5-Dimethyl-2,5-di(tert.butylperoxy)hexan are vinyl specific cross link peroxides (lower cross link density)

**Specifications** Typical Product Data can not be used as specifications. Assistance and specifications are available by contacting Momentive performance materials.

**Containers** **Silopren HV 3/506** is available in 25 kg and 500 kg boxes

**Instructions for Use** Crosslinking can be carried out with all peroxides commonly used for the press moulding and extrusion process. They are mixed into the rubber, if necessary together with **Silopren HV Additives**. 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<sup>\*</sup> (50%) is recommended. The dosage ranges from 1-2 parts by weight of crosslinking agent on 100 parts by weight (pbw.) of base compound. Good results have been achieved with a dosage of 1.5 pbw. While the crosslinking agent is being incorporated the temperature of the compound should not exceed 40°C. So the rolls of the mixing mill should always be well cooled. It is pointed out that the compression set behaviour obtained with bis-2,4-dichlorobenzoyl-peroxide is generally less satisfactory than that given by dicumyl peroxide or comparable products.  
To vulcanize goods in a press or in steam recrystallized dicumyl peroxide (95 %) is generally recommended. Instead of Dicumyl peroxide corresponding proportions of other peroxides e.g. ones with less odor can be used.

**Handling and Safety** **Silopren HV 3/506** is not compliant to FDA / BfR regulations. Material Safety Data Sheets are available upon request from Momentive performance materials. Similar information for other chemicals used with Momentive performance materials products may be obtained from your suppliers.

<sup>\*</sup> Caution:

Bis-2,4-dichlorobenzoyl peroxide may generate polychlorinated biphenyls (PCBs) during the curing process. EC Directive 76/769 and its amendments limits the content of PCBs to max. 50 mg/kg product.

**Storage Period** The shelf life for the **Silopren HV 3/506** is 12 months from date of manufacture, if stored in the original unopened boxes and stored at dry conditions at room temperature (max. 27 deg. C, < 60 % rel. humidity). The shelf life will be indicated by the "use before date" on the associated Certificate of Analysis.

**Availability** **Silopren HV 3/506** may be ordered from your regular sales contact or please call Momentive performance materials, Bergen-op-Zoom, Netherlands at 00800-4321-1000 to find out which is the nearest sales office to you.



PRINCIPAL LOCATIONS – Regional Information

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