

Silopren\* HV 4/311

**Product Description** **Silopren HV 4/311** is a heat cure silicone rubber base compound, which is suitable for press-, injection-moulding, calandering and extrusion. As a general purpose compound **Silopren HV 4/311** is useable in a wide variety of high quality applications such as low durometer tubes and profiles of all kinds.

- Key Performance Properties**
- good extruding processability
  - good mechanical properties
  - good green strength
  - easily blendable
  - versatile
  - **Silopren HV 4/311**, the ingredients used to formulate this product are compliant with 21 CFR 177.2600 "Rubber articles intended for repeated use" and BfR recommendation XV "Silicone".
  - **Silopren HV 4/311** has passed full tests of effect on water quality: WRAS-Approval (BS 6920)

**Typical Product Data**

<b>Typical Properties of the Uncured Base Compound:</b>			
Appearance			transparent
Density	DIN 53 479 A	g/cm <sup>3</sup>	1.08
Mooney viscosity	DIN 53 523		
ML (0) 25 ° C		ME	21
ML (4) 25 ° C		ME	17
<b>Typical Properties of the Vulcanized Rubber:</b>			
100 pbw. Silopren 4/311 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	35
Tensile strength	DIN 53 504 S2	N/mm <sup>2</sup>	7.0
Elongation at break	DIN 53 504 S2	%	600
Tear strength	ASTM D 624 die B	N/mm	10

**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-peroxides 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 4/311** 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\* (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 behavior 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 odour can be used.

**Handling and Safety** 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.

\* 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 4/311** 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 4/311** 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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