POWERSIL® 311 MH

High Consistency Silicone Rubber (HCR)

POWERSIL® 311 MH is a 1-component, ready to use, peroxide curing compound that cures to an electrically-insulating, highly erosion resistant silicone elastomer.

Properties

- very good arc resistance
- suitable dielectric properties
- good mechanical properties

Special features

- Excellent hydrophobicity behavior
- Resistant to tracking and erosion

Technical data

Properties Uncured

Property	Condition	Value	Method
Density	23 °C	1.58 g/cm^3	DIN EN ISO 1183-1 A
Color	-	light gray	-

These figures are only intended as a guide and should not be used in preparing specifications.

Properties Cured

Cure conditions: 15 min / 165°C in press

Property	Condition	Value	Method
Arc resistance	-	> 300 s	IEC 61621
Tracking resistance	-	1A 4.5	IEC 60587
Dielectric strength (1-mm-sheet)	-	23 kV/mm	IEC 60243-1
Dissipation factor	50 Hz	2x10^{-2}	IEC 62631-2-1
Permittivity	50 Hz	3.7	IEC 62631-2-1
Volume resistivity	-	10^{14} Ohmcm	IEC 62631-3-1
Elongation at break	-	≥ 100 %	ISO 37 type 1
Tensile strength	-	≥ 4.0 N/mm^2	ISO 37 type 1
Hardness Shore A	-	(± 5) 80	ISO 7619-1
Tear strength	-	≥ 10 N/mm	ASTM D 624 B

These figures are only intended as a guide and should not be used in preparing specifications.

All the information provided is in accordance with the present state of our knowledge. Nonetheless, we disclaim any warranty or liability whatsoever and reserve the right, at any time, to effect technical alterations. The information provided, as well as the product's fitness for an intended application, should be checked by the buyer in preliminary trials. Contractual terms and conditions always take precedence. This disclaimer of warranty and liability also applies particularly in foreign countries with respect to third parties' rights.

Applications

- Insulators
- Arresters

Application details

POWERSIL® 311 MH is the silicone rubber of choice for the manufacture of electrical insulating equipment for outdoor use, e.g. composite insulators, arrester housings, bushings etc., especially suitable for extruded parts that are cured in air.

More information can be found in the brochure "Solutions for the Transmission and Distribution Technology".

Processing

POWERSIL® 311 MH is typically processed by extrusion onto rods, profiles or other semi-finished products and then cured at elevated temperature in air.

For detailed information please refer to our brochure "Solid and Liquid Silicone Rubber, Material and Processing Guidelines".

To achieve a good bond between typically-used materials for electrical insulation equipment a primer is necessary.

Packaging and storage

Packaging

This product is available in 20 kg and 540 kg cardboard packaging.

Special delivery forms are possible but depend on several technical and commercial aspects. Please contact your local sales manager in such cases.

Storage

Further information for storage:
Store in a dry and cool place.

The 'Best use before end' date of each batch is shown on the product label.

Storage beyond the date specified on the label does not necessarily mean that the product is no longer usable. In this case however, the properties required for the intended use must be checked for quality assurance reasons.

The containers must be protected against sunlight. Keep separate from organic rubber and crosslinker chemicals.

Safety notes

Comprehensive instructions are given in the corresponding Material Safety Data Sheets. They are available on request from WACKER subsidiaries or may be printed via WACKER web site http://www.wacker.com.

QR Code POWERSIL® 311 MH

For technical, quality or product safety questions, please contact:

Wacker Chemie AG, Hanns-Seidel-Platz 4, 81737 Munich, Germany
info@wacker.com, www.wacker.com

The data presented in this medium are in accordance with the present state of our knowledge but do not absolve the user from carefully checking all supplies immediately on receipt. We reserve the right to alter product constants within the scope of technical progress or new developments. The recommendations made in this medium should be checked by preliminary trials because of conditions during processing over which we have no control, especially where other companies' raw materials are also being used. The information provided by us does not absolve the user from the obligation of investigating the possibility of infringement of third parties' rights and, if necessary, clarifying the position. Recommendations for use do not constitute a warranty, either express or implied, of the fitness or suitability of the product for a particular purpose.