

ELASTOSIL® R 770

Peroxide crosslinking HCR silicone for special flame retardant applications

Characteristics

ELASTOSIL® R 770 is a peroxide crosslinking HCR silicone for the manufacture of flame retardant profiles.

Special characteristics

- Flame retardant
- Tested according to BS 6853 category 1
- Tested according to London Underground standards
- Low toxicity combustion products generating low quantity of smoke
- High temperature index
- Good mechanical properties

Application

Profiles for construction, automotive, railway, marine and aerospace applications.

Designed for applications according to BS6853 category 1 and London Underground standards.

Properties

The color of the rubber base is white. Therefore, colors will not match the RAL color codes of the masterbatches used in paste or pellet form in the compound (pastel colors).

Apart from its low inflammability the 50 Shore A version exhibits high mechanical strength.

The 75 Shore A version shows an extremely high oxygen index (LOI), and, at a thickness of 2 mm it may pass the test according to UL 94 V0.

Processing

Extrusion. Cures in hot air tunnels (IR, HAV).

We recommend running preliminary tests to optimize conditions for the particular application. Comprehensive processing instructions are given in our leaflet "Processing ELASTOSIL® R Solid Silicone Rubber". ELASTOSIL® R 770 is crosslinked with 1.5 % crosslinker E [Bis(2,4-dichlorobenzoyl)peroxide, 50 %] at T > 135 °C.

When coloring the compounds one has to take into account the color of the base, see also "Properties".

Product Data

Property	Test method	Unit	ELASTOSIL® R 770		
Hardness Shore A	DIN 53 505		50	60	75
Appearance			White	White	White
Specific Gravity	DIN EN ISO 1183-1 A	[g/cm ³]	1.14	1.51	1.54
Tensile Strength	DIN 53 504 S 1	[N/mm ²]	9.0	3.9	6.4
Elongation at Break	DIN 53 504 S 1	[%]	750	340	128
Tear Strength, die B	ASTM D 624 B	[N/mm]	35	13	10
Volume Resistivity	DIN IEC 93	[Ω cm]	10 ¹⁵	10 ¹⁵	10 ¹⁵
Oxygen Index (LOI)	ASTM D 2863	[%]	30	> 35	> 35

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

Storage

ELASTOSIL® R 770 should be stored between 5 °C and 25 °C in the tightly closed original container. The 'Best use before end' date of each batch appears on the product label.

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

Safety information

According to the present state of our knowledge, ELASTOSIL® R 770 contains neither toxic nor corrosive substances which would require special handling precautions. Therefore only the general industrial hygiene regulations apply.

Detailed safety information is contained in each Material Safety Data Sheet, which can be obtained from our sales offices.

The data presented in this leaflet 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 leaflet 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 recommendations do 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 products for a particular purpose.

The management system has been certified according to DIN EN ISO 9001 and DIN EN ISO 14001

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Version 4.10 from 26-02-07 replaces Version 4.00 from 06-12-06

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

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