# ELASTOSIL® R 512/70 OH

ELASTOSIL®

## High Consistency Silicone Rubber (HCR/HTV)

ELASTOSIL® R 512/70 OH is a peroxide curing HCR silicone for the manufacture of silicone-insulated safety cables that maintain circuit integrity in case of fire.

## Properties

In case of fire ELASTOSIL® R 512/70 OH forms a ceramic-like layer with high insulation resistance, good mechanical stability and low smoke formation.

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

ELASTOSIL® R 512/70 OH is also available as 2-component-system (ELASTOSIL® R 512/70-1 & -2). The advantage is that the properties of the compound can be adjusted easily by modifying the mixing ratio of component -1 & -2 for the particular application.

This product can be used within a temperature range of - 55 °C to + 210 °C.

### Specific features

- Ceramifying

# Technical data

## Properties Cured

**Cure conditions ELASTOSIL® R 512/70 OH:**
**1.8 % ELASTOSIL® AUX Crosslinker E (50% paste of bis-(2,4-dichlorobenzoyl)-peroxide in silicone fluid); 10 min / 135 °C in press**

| Property | Condition | Value | Method |
|---|---|---|---|
| Appearance | - | opaque | - |
| Hardness Shore A | - | 70 | DIN ISO 48-4 |
| Density | - | 1.37 g/cm$^3$ | DIN EN ISO 1183-1 A |
| Tensile strength | - | 6.5 N/mm$^2$ | ISO 37 type 1 |
| Elongation at break | - | 300 % | ISO 37 type 1 |
| Tear strength | - | 18 N/mm | ASTM D 624 B |
| Compression Set | 22 h \| 175 °C | 41 % | DIN ISO 815-1 type B method A |
| Volume resistivity | - | $10^{14}$ Ohmcm | IEC 62631-3-1 |
| Permittivity | 50 Hz | 3.0 | IEC 62631-2-1 |
| Dielectric strength | - | 21 kV/mm | IEC 60243-1 |

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

### Properties cured – mixing ratio

**Cure conditions EL R 512/70-1 / EL R 512/70-2:**
**1.8 % ELASTOSIL® AUX Crosslinker E (50% paste of bis-(2,4-dichlorobenzoyl)-peroxide in silicone fluid); 10 min / 135°C in press**

| Property | Mix ratio 2:8 | Mix ratio 3:7 | Mix ratio 4:6 | Method |
|---|---|---|---|---|
| Appearance | opaque | opaque | opaque | - |
| Hardness Shore A | 68 | 69 | 70 | DIN ISO 48-4 |
| Density | 1.26 g/cm$^3$ | 1.32 g/cm$^3$ | 1.37 g/cm$^3$ | DIN EN ISO 1183-1 A |
| Tensile strength | 8.0 N/mm$^2$ | 7.5 N/mm$^2$ | 6.5 N/mm$^2$ | ISO 37 type 1 |
| Elongation at break | 320 % | 310 % | 300 % | ISO 37 type 1 |
| Tear strength | 20 N/mm | 20 N/mm | 19 N/mm | ASTM D 624 B |
| Volume resistivity | $10^{14}$ Ohmcm | $10^{14}$ Ohmcm | $10^{14}$ Ohmcm | IEC 62631-3-1 |
| Permittivity | 2.8 | 3 | 3 | IEC 62631-2-1 |
| Dielectric strength | 19 kV/mm | 20 kV/mm | 21 kV/mm | IEC 60243-1 |

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## Applications

- Safety Cables

## Application details

For flame resistant cable constructions (safety cables). Cables made of ELASTOSIL® R 512/70 OH have successfully passed standards, like NFC 32070 CR1, DIN 4102 part 12, UL 2196, EN 50200, IEC 60331-11, etc.

## 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

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.

## 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 ELASTOSIL® R 512/70 OH

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

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