

# POLSIL® GUM 100/50

## PRODUCT DESCRIPTION

Polsil® GUM 100/50 is general purpose heat cured elastomer widely used for molding and extrusion in various industries.

## FEATURES AND BENEFITS

- high resistance to aging caused by light, oxygen, environment factors
- resistance to UV radiation and ozone
- resistance to low and high temperatures at low changeabilities of physical characteristic
- chemical resistance
- very good insulation properties
- gas permeability
- flexibility and durability
- physiologically neutral

## CHARACTERISTICS

Typical Properties of the Uncured Base Compound			
Appearance		translucent	
Density	PN - ISO 2781:1966	g/cm <sup>3</sup>	1,12 - 1,16
Typical Properties of the Vulcanized Rubber Polsil® GUM 100/50 with 1,5% bis (2-4-dichlorobenzoyl) peroxide in the form of 50% paste in silicone fluid. Vulcanization conditions: 10 min at 135°C.			
Hardness Shore A	PN – EN ISO 868	° ShA	45-55
Tensile Strength	PN - ISO 37	MPa	min. 6,5
Elongation at break	PN - ISO 37	%	min. 300
Tear Resistance	PN - ISO 34-1	kN/m	min.17
Thermal resistance		°C	200
Volume Resistivity	PN – 88/ E-04405:1989	Ω cm	1 x 10 <sup>14</sup>
Surface Resistivity	PN – 88/ E-04405:1989	Ω	1 x 10 <sup>15</sup>
Dielectric Strength	PN-EN-60243-1:2002	kV/mm	at least 12,00
Dielectric Loss Factor (50 Hz)	PN- 86 E-04403	tg δ	less than 0,001

Typical data are average data and actual values may vary. Typical data shall not be used as product specification.

## APPLICATION

Polsil® GUM 100/50 due to excellent physical and chemical properties can be used for production of: hoses, sections and cords, suppression pads, various sorts of seals, cylinder lining, construction elements, panels and many other extrusion moulded and moulded articles.

## PRODUCTION OF MASTERBATCHES

HTV silicon rubbers are available as masterbatches or compounds ready for processing and containing such additives like peroxides, pigments etc. The names of compounds are determined on the used HTV masterbatch. Depending on added peroxide, so called vulcanization initiator – a letter D, T or M is added to the name of a rubber. The color of the compounds is determined by the RAL palette or by the common name transparent.

The vulcanization method together with a recommended quantity of curing agents are shown in the table below:

Compounds type	Peroxide type	Curing method	Colour according to RAL chart	Name of compounds
Polsil® Gum 100/50	<b>D</b> bis(2,4-dichlorobenzoyl) peroxide 50% paste	Suitable for press-moulding or extrusion Recommended conditions: 10 min at 135°C Post-cure: 4 hours at temp. 200°C	7004	Polsil® Gum D 100/50 RAL 7004
Polsil® Gum 100/50	<b>T</b> 2,5-dimethyl 2,5 di(t-butyl peroxy)hexane 45% paste	Press-moulding Recommended conditions: 10 min at 175°C Post-cure: 4 hours at temp. 200°C	7004	Polsil® Gum T 100/50 RAL 7004
Polsil® Gum 100/50	<b>M</b> is(4methylbenzoyl) peroxide 50% paste	Suitable for press-moulding or extrusion Recommended condition: 5-10 min at 115°C Post-cure: 4 hours at 200°C	7004	Polsil® Gum M 100/50 RAL 7004

### Storage

Store in the original tightly closed containers at dry conditions at temperature from 0 to 40°C.

### Packing

Polyethylene foil and cardboard boxes.

### Warranty periods

6 months from the date of manufacture

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### Producer's notes

The information contained in this document is given in good faith based on our current knowledge. However, this shall not constitute a guarantee for any specific product features. Each user bears the full responsibility for making its own determination as to the suitability of product for its own particular purpose. Because actual use of product by the user is beyond our control, such use is within the exclusive responsibility of the user, and we cannot be held responsible for any loss incurred through incorrect or faulty use of the product. For more detailed information please contact us in writing or by phone.



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