

RUBBER COMPOUND RANGE

VGP20-80

General Purpose Silicone Rubber

Silicone

20-80 Shore A

-50°C to +180°C

Translucent

Food Contact

General Information

VGP20-80 is a range of general purpose peroxide-cured silicone compounds with very good mechanical properties, available in seven hardness grades from 20 to 80 Shore A.

The compounds are suitable for food contact applications, with heat stability across a wide temperature range of -50°C to +180°C.

The material has high transparency and can be pigmented to a variety of colours.

POLYMER

Peroxide-cured silicone

HARDNESS RANGE

20-80 Shore A (7 grades)

APPEARANCE

Translucent (pigmentable)

TEMPERATURE RANGE

-50°C to +180°C

Material Compliance

- FDA 21 CFR 177.2600
- EC 1935/2004
- USP Class VI
- WRAS Approved
- Free from TSE/BSE bi-products
- Free from Phthalates

Full product compliance sheet available on request. Compliances are dependent on colour pigment choice; full details of pigment compliance are available on request. FDA and USP Class VI compliance is subject to processing conditions. For certification purposes, end products should be tested.

Environmental Resistance

Silicone rubber products have an excellent resistance to:

- Ozone
- Oxidation
- Ultraviolet light
- Cosmic radiation
- Ionising radiation
- Weathering in general
- Corona discharge

This information and our technical advice, whether verbal, in writing or by way of trials, is given in good faith. Recommendations for use do not constitute a warranty, either express or implied, of the fitness or suitability of the product for a particular purpose. This also applies where proprietary rights are involved. Our advice does not release you from the obligations to check its validity and to test our products as to their suitability for their intended use. The storage, application and use of our products are beyond our control and, therefore, entirely your own responsibility. The information contained within this data sheet is subject to change without notice.

Material Properties

Cure conditions: 1.5% (50% paste of bis (2,4-dichlorobenzoyl)-peroxide in silicone fluid), 10 min / 135°C in press, post-cured 4 h / 200°C.

Property	Units	VGP20	VGP30	VGP40	VGP50	VGP60	VGP70	VGP80	Test Method
Appearance	–				Translucent				–
Temperature range	°C				-50 to +180				–
Hardness	°Shore A	23	28	38	50	60	70	77	DIN ISO 48-4
Density	g/cm ³	1.11	1.10	1.12	1.15	1.15	1.18	1.20	DIN EN ISO 1183-1 A
Tensile strength	N/mm ²	9.0	10.0	9.6	12.0	11.0	11.3	10.0	ISO 37 type 1
Elongation at break	%	1000	910	770	640	550	530	440	ISO 37 type 1
Tear strength	N/mm	27	28	28	27	26	31	28	ASTM D 624 B
Compression set 22 h 175°C	%	30	20	36	34	31	40	78	DIN ISO 815-1 type B method A
Rebound resilience	%	30	58	56	58	59	55	54	ISO 4662

These figures are only intended as a guide and should not be used in preparing specifications. Size tolerance to ISO 3302-1: 2014.

Typical Applications

- Automotive
- Domestic and Commercial
- Catering
- Electronics
- Construction
- Energy
- Food & Beverage
- Heating and Ventilation (HVAC)
- Industrial
- Insulation
- Lighting
- Marine

This information and our technical advice, whether verbal, in writing or by way of trials, is given in good faith. Recommendations for use do not constitute a warranty, either express or implied, of the fitness or suitability of the product for a particular purpose. This also applies where proprietary rights are involved. Our advice does not release you from the obligations to check its validity and to test our products as to their suitability for their intended use. The storage, application and use of our products are beyond our control and, therefore, entirely your own responsibility. The information contained within this data sheet is subject to change without notice.