

# IPOTEC

## Innovation in Polymer Technology

Ipotec LLC, 41 Industrial Drive, Exeter, NH 03833, USA  
Tel: (+1)(603) 778 2882 • Fax: (+1)(603) 778 2878 • <http://www.ipotec.com> • e-mail: [info@ipotec.com](mailto:info@ipotec.com)

### MATERIAL DATA: S10-S90 SILICONE ELASTOMERS

S10 – S90 silicone elastomers are polysiloxanes which have been cross linked with an organic peroxide. They have excellent resistance to ozone, oxidation, ultraviolet light, corona discharge, cosmic radiation and weathering in general.

S10 – S90 grades are suitable for continuous use at temperatures between -60°F (-50°C) and 400°F (204°C) and for intermittent use from -80°F (-62°C) to 450°F (232°C). Red iron-oxide formulations are suitable for use up to 480°F (250°C). A high temperature grade is available in natural opaque or dark grey, suitable for use up to 570°F (300°C).

Natural translucent S10 – S90 products contain only ingredients that are listed under FDA 21 CFR 177-2600. Many colors can also be formulated within FDA requirements.

### Mechanical, Electrical and Thermal Properties

Property	Test Method	Typical Value								
		S10	S20	S30	S40	S50	S60	S70	S80	S90
Durometer (ShA)	ASTM D2240	10 +10/-0	20 +8/-3	30 +8/-3	40 +/-5	50 +/-5	60 +/-5	70 +/-5	80 +/-5	90 +0/-10
Tensile Strength (psi)	ASTM D412	900	1250	1300	1375	1525	1500	1550	1450	1200
Tear Strength (ppi)	ASTM D624 B	100	100	95	90	115	115	125	140	110
Elongation (%)	ASTM D412	1200	920	700	550	480	390	400	400	300
Specific Gravity	ASTM D792	1.07	1.11	1.11	1.12	1.15	1.17	1.18	1.19	1.20
Dielectric Strength (V/mil)	ASTM D149	500	500	500	500	500	500	500	500	500
Brittle Point	ASTM D2137	-112°F	-112°F	-112°F	-122°F	-112°F	-112°F	-112°F	-112°F	-112°F
Compression Set 22 hrs / 175°C (347°F)	ASTM D395 B	40%	35%	45%	45%	50%	50%	40%	50%	55%

Unless specifically stated data relates to general-purpose materials. Some properties of special grades may differ. Information provided in this data sheet is indicative and is given in good faith but without warranty, express or implied. Whilst test results are deemed to be reliable, performance of these products is dependent on conditions of use and it is the responsibility of the user to determine suitability for a particular application.