Technical Data Sheet

SILASTIC™ SRX 539 UT Silicone Rubber

65 Durometer, molding, electrically conductivity, uncatalyzed silicone rubber

Features & Benefits

- 65 JIS-Type A hardness
- High electrically conductivity
- Serviceable over wide temperature range

Composition

- Silicone rubber (HCR)
- Uncatalyzed stock (U-stock)

Applications

- Molding
- Rubber contacts
- Transfer rollers
- Pigment

Typical Properties

Specification Writers: These values are not intended for use in preparing specifications.

Test[1]	Property	Unit	Result
	As supplied		
JIS K 6249	Appearance		Black
JIS K 6249	Plasticity	mm/100	510
	As cured		
JIS K 6249	Density	g/cm^3	1.17
JIS K 6249	Durometer hardness, JIS type A		64
JIS K 6249	Tensile strength, JIS#3	MPa	6.2
JIS K 6249	Elongation, JIS#3	%	310
JIS K 6249	Modulus at 100% elongation, JIS#3	MPa	2.86
JIS K 6249	Tear strength, crescent	N/mm	8

1. JIS: Japanese Industrial Standard.

Properties obtained using 1.2 part of SILASTIC™ RC-4 50P FD Rubber Additive (2,5-bis(tert-butylperoxy)-2,5-dimethyl hexane, 50% masterbatch) per 100 parts of SILASTIC™ SRX 539 UT Silicone Rubber: molded 10 minutes at 170°C (338°F) and post-cured 4 hours at 200°C (392°F).

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Typical Properties (Cont.)

Test	Property	Unit	Result
JIS K 6249	Tear strength, angle	N/mm	16
JIS K 6249	Linear shrinkage, disc[2]	%	3.9
JIS K 6255	Rebound, Lupke	%	48
JIS K 6249	Compression set, 180°C /22h	%	56
JIS K 6249	Volume resistance	Ω·cm	3.8

2. Linear shrinkage depends on the curing conditions such as type of curing agent, curing temperature and size of molded product.

How to Use

Milling

For adding vulcanizing agents and / or additives or blending, milling with a two-roll mill is the most suitable process. Milling time should be carefully decided to secure uniformity of materials.

Vulcanization

SILASTIC™ SRX 539 UT Silicone Rubber requires the addition of a vulcanizing agent. SILASTIC™ RC-4 50P FD Rubber Additive is recommended for molding. Standard cure temperature is 170°C (338°F), and its cure time depends on the thickness of final products. Post-cure condition would be 4 hours at 200°C (392°F) after molding in most cases. The other SILASTIC™ curing agents are also available for vulcanization.

Compounding

SILASTIC™ SRX 539 UT Silicone Rubber can be blended with other bases to modify the durometer of the compound. The physical properties of this product can be modified using a range of SILASTIC™ or XIAMETER™ additives.

Handling Precautions

PRODUCT SAFETY INFORMATION REQUIRED FOR SAFE USE IS NOT INCLUDED IN THIS DOCUMENT. BEFORE HANDLING, READ PRODUCT AND SAFETY DATA SHEETS AND CONTAINER LABELS FOR SAFE USE, PHYSICAL AND HEALTH HAZARD INFORMATION. THE SAFETY DATA SHEET IS AVAILABLE ON THE DOW WEBSITE AT DOW.COM, OR FROM YOUR DOW SALES APPLICATION ENGINEER, OR DISTRIBUTOR, OR BY CALLING DOW CUSTOMER SERVICE.

Usable Life and Storage

Product should be stored at or below 32°C(90°F) in original, unopened containers, this product has usable life of 720 days from the date of production.

Packaging Information

SILASTIC™ SRX 539 UT Silicone Rubber is available in 20 kg (44 lb) boxes.

Limitations

This product is neither tested nor represented as suitable for medical or pharmaceutical uses.

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Health and Environmental Information

To support customers in their product safety needs, Dow has an extensive Product Stewardship organization and a team of product safety and regulatory compliance specialists available in each area.

For further information, please see our website, dow.com or consult your local Dow representative.

Disposal Considerations

Dispose in accordance with all local, state (provincial) and federal regulations. Empty containers may contain hazardous residues. This material and its container must be disposed in a safe and legal manner.

It is the user's responsibility to verify that treatment and disposal procedures comply with local, state (provincial) and federal regulations. Contact your Dow Technical Representative for more information.

Product Stewardship

Dow has a fundamental concern for all who make, distribute, and use its products, and for the environment in which we live. This concern is the basis for our product stewardship philosophy by which we assess the safety, health, and environmental information on our products and then take appropriate steps to protect employee and public health and our environment. The success of our product stewardship program rests with each and every individual involved with Dow products - from the initial concept and research, to manufacture, use, sale, disposal, and recycle of each product.

Customer Notice

Dow strongly encourages its customers to review both their manufacturing processes and their applications of Dow products from the standpoint of human health and environmental quality to ensure that Dow products are not used in ways for which they are not intended or tested. Dow personnel are available to answer your questions and to provide reasonable technical support. Dow product literature, including safety data sheets, should be consulted prior to use of Dow products. Current safety data sheets are available from Dow.

Table 1: Heat Resistance of SILASTIC™ SRX 539 UT Silicone Rubber

Test	Unit	Result
Heat Aged, 72 Hours at 200°C (392°F)		
Hardness Change	points	+3
Tensile Change	%	-3
Elongation Change	%	-13
Heat Aged, 72 Hours at 250°C (482°F)		
Hardness Change	points	+23
Tensile Change	%	-77
Elongation Change	%	-98

Properties obtained using 1.2 part of SILASTIC™ RC-4 50P FD Rubber Additive (2,5-bis(tert-butylperoxy)-2,5-dimethyl hexane, 50% masterbatch) per 100 parts of SILASTIC™ SRX 539 UT Silicone Rubber: molded 10 minutes at 170°C(338°F) and post-cured 4 hours at 200°C (392°F).

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