



Technical Data Sheet

SILASTIC™ FCE 50-4943 Fluorosilicone Rubber Compound

Red, 60 Shore A Durometer, peroxide cure, fluorosilicone rubber compound (uncatalyzed)

Features & Benefits

- Good mechanical properties
- Good thermal resistance
- Good oil resistance

Applications

- Turbo charger hoses in cars, trucks or other special automotive equipment

Typical Properties

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

Formulation	Unit	Result
SILASTIC™ FCE 50-4943 Fluorosilicone Rubber Compound	parts	100
V catalyst, 50% active	parts	1.0

Test ¹	Property ²	Unit	Result
ASTM D2240	Hardness, Shore A	point	57
ASTM D792	Specific gravity		1.48
ASTM D412	Tensile strength	MPa	9.6
ASTM D412	Elongation at break	%	330
ASTM D624 B	Tear strength (crescent)	kN/m	19
ASTM D624 T	Tear strength (trouser)	kN/m	5.6
GB/T 7759.1	Compression set ³ , 175°C×22 hrs×25%	%	8
GB/T 7762	Ozone resistance, 50×10 ⁻⁸ ×40°C×70 hrs, stretch 20%		No crack
GB/T 1682	Brittle temperature, -50°C×3 min		No fracture

1. ASTM: American Society for testing and Materials.
GB/T: China National Standards.
2. Properties obtained on 2 mm thick slabs: press cured 10 minutes at 170°C, post cured for 4 hours at 200°C.
3. Properties obtained on 12 mm thick sample: press cured 15 minutes at 170°C, post cured for 4 hours at 200°C.

Typical Properties (Cont.)

Test	Property	Unit	Result
Heat aged 70 hours at 225°C - GB/T 3512			
GB/T 531.1	Change in hardness, Shore A	point	+6
GB/T 528	Change in tensile strength	%	-18
GB/T 528	Change in elongation at break	%	-18
Oil resistance properties: fuel C resistant 23°C×70 hrs – GB/T 1690			
GB/T 531.1	Change in hardness, Shore A	point	-15
GB/T 528	Change in tensile	%	-48
GB/T 528	Change in elongation	%	-41
GB/T 1690	Volume change rate	%	+30
IRM 903 resistant 150°C×70 hrs – GB/T 1690			
GB/T 531.1	Change in hardness, Shore A	point	-5
GB/T 528	Change in tensile	%	-22
GB/T 528	Change in elongation	%	-20
GB/T 1690	Volume change rate	%	+6
API SL SAE 15W-40 engine oil resistant 150°C×70 hrs – GB/T 1690			
GB/T 531.1	Change in hardness, Shore A	point	-2
GB/T 528	Tensile strength	MPa	7.7
GB/T 528	Elongation at break	%	295
GB/T 1690	Volume change rate	%	+2.5
Diesel (0#) oil resistant 23°C×94 hrs – ASTM D2240			
ASTM D2240	Change in hardness, Shore A	point	-6
ASTM D412	Tensile strength	MPa	7.9
ASTM D412	Elongation at break	%	273
ASTM D624 T	Tear strength (trouser)	kN/m	4.4
ASTM D471	Quality change rate	%	+2.3
IRM 903 resistant 150°C×94 hrs – ASTM D471			
ASTM D2240	Change in hardness, Shore A	point	-5
ASTM D412	Tensile strength	MPa	6.3
ASTM D412	Elongation at break	%	228
ASTM D624 T	Tear strength (trouser)	kN/m	2.6
ASTM D471	Quality change rate	%	+4.0

How to Use

SILASTIC™ FCE 50-4943 Fluorosilicone Rubber Compound required the addition of a vulcanizing agent. T-catalyst (2,4-dichlorobenzoyl peroxide) is recommended for hot air vulcanization. V catalyst (2,5-bis[tert-butylperoxy]-2,5-dimethylhexane) is recommended for molding.

**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 50°C (122°F) in original, unopened containers. This product has a usable life of 720 days from the date of production.

Limitations

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

**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.

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