

DOW CORNING SILASTIC® FSR
fabrication flexibility
PROFIT THROUGH PERFORMANCE

*Silastic®
Fluorosilicone
Rubber*

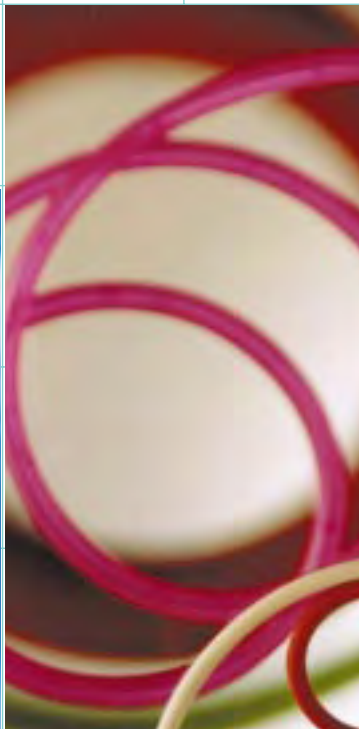
Selection Guide



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DOW CORNING



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Materials for demanding environments

Harsh service conditions

Dow Corning designs Silastic® fluorosilicone rubber materials for the most demanding service conditions. They are a unique family of elastomers that can survive where most conventional materials fail, including applications such as:

- Jet fuel exposure
- Gasoline/diesel exposure
- Engine oils
- Most solvents & chemicals



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Performance & value

Often regarded in the past as specialty materials, today's *Silastic*[®] fluorosilicone rubber formulations are finding increased use in a broad range of industries, especially global automotive manufacturing, where they are now the first choice for many applications. Helping to accelerate their growth is the development of more cost-effective formulations, advanced production technology for faster and simpler manufacturing, as well as the growing recognition that these durable elastomers retain their excellent physical properties over a very wide range of temperatures and service conditions.

Superior fluid resistance for premium performance

The fluid resistance of *Silastic* fluorosilicone rubber from Dow Corning sets it apart from traditional silicone formulations and most organic elastomers. Even prolonged immersion in engine oils, transmission fluids, power steering fluids, gasoline or jet fuel has little effect on physical properties, causing only slight swelling.

Our fluorosilicone rubber also takes repeated flexing without stress cracking and offers a relatively constant modulus over a wide temperature range, making it an excellent choice for diaphragm applications.

Maintaining physical properties

Silastic fluorosilicone rubber demonstrates good compression set resistance under harsh fluid exposure and extreme temperatures, and maintains excellent tear and tensile strength despite hostile service environments. The result is rubber components that remain flexible without softening or turning brittle, and have the ability to function under conditions that would destroy many conventional materials.

Silastic fluorosilicone rubber is virtually unaffected by environmental conditions including:

- UV radiation
- Extreme high/low temperatures
- Rain, sleet, snow
- Ozone

These high-performance elastomers are frequently a first choice in tough automotive, truck and aerospace applications, where flexibility and longevity are critical. *Silastic* fluorosilicones also deliver outstanding insulating properties, and are well suited to meeting strict performance standards. And because they can be manufactured in a contamination-free environment, select grades of *Silastic* fluorosilicone rubber can be used in high-purity applications.

Which products might benefit from *Silastic* fluorosilicone rubber?

Silastic fluorosilicone rubber products are used in a myriad of industries, from automotive and aerospace to chemical and petroleum manufacturing. The applications are virtually limitless:

- Grommets
- O-rings & seals
- No-weep engine gaskets
- Diaphragms
- Product photo(s)
- Fuel tank seals and gaskets
- Umbrella and duckbill valves
- Turbo charger and filler neck hoses
- Hot air ducts
- Couplings
- Connector inserts

Contact our local sales or technical service experts to discuss your needs.



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Processing fluorosilicones is as easy as traditional silicone rubber

Silastic fluorosilicone rubber products are supplied as one-part, millable materials with either a peroxide or addition catalyst, cured by heat. They can be provided as a base material for customer compounding, or as a fully compounded formulation, ready to run. Available in a range of durometer hardnesses, properly compounded fluorosilicones meet certain MIL, AMS, ASTM and other specifications.

Product line diversity

Dow Corning offers the largest product line in the industry. We also offer custom products that can be blended for specific performance needs. Most materials can be pigmented to nearly any desired color, including fluorescent shades, and primers are available to improve bonding to most substrates.

Versatility

Because of its versatility, *Silastic* fluorosilicone rubber offers exceptional design efficiency and processing flexibility:

- Molding—Parts can be manufactured in a variety of shapes and sizes via compression, transfer or injection molding.
- Extrusion—Tubing and complex profiles can be extruded easily.
- Calendering—Fluorosilicone rubber can be calendered into long, thin sheets of uniform thickness, either unsupported or fabric reinforced. Ideal for flat seals and bands.
- Fabric coating—Bases and compounds can be dispersed in ketones or other solvents to be coated onto fabrics or other substrates. Heat cure follows solvent removal.

Total Global Capabilities with Local Service Support

When you team up with Dow Corning, you receive nothing short of total system support. From material and pigment selection through part finishing, we're available to answer your toughest questions.

We offer you seamless, global capabilities delivered to meet your local needs. Technical support and customer service are available around the globe, including testing and certification to help meet industry or customer requirements. Our continued investment in fluorosilicone rubber technology and state of the art equipment is evidence of our long-term commitment to serving your needs.

Go ahead and ask us the tough questions about:

- New material development
- Processing techniques
- Calibration of equipment
- Mold design evaluation
- Regulatory compliance

With more than 50 years of silicone experience, the technology base at Dow Corning includes 1500 active U.S. patents, more than 5000 product formulations and a global silicone R&D database, as well as extensive analytical equipment and capabilities. In short, we deliver the highest quality materials coupled with the global collective knowledge of fluorosilicone materials experts worldwide to meet your company's needs.

Product specs?—Read on. Questions?—Give us a call.

Inside this selection guide you'll find data on materials that meet very exacting application requirements. If there's something you need that isn't represented here, give us a call. Chances are we're already working on it, or can modify an existing formulation to satisfy your application needs.

For more information on the benefits of *Silastic* fluorosilicone rubber, contact your nearest Dow Corning facility, or visit us on the Web at <http://www.dowcorning.com/rubber>. Technical brochures and product data sheets are available on the complete product line.

It comes down to having the silicone rubber materials and technical support that you need

Dow Corning offers your company a broad selection of fluorosilicone rubbers that can be blended with many different fillers, modifiers and pigments to develop specific compounds. Or we can custom compound a material designed to help shorten development time and optimize manufacturing capabilities. The most important thing we offer is responsiveness to your global and local needs, and the ability to provide you with the most comprehensive silicone rubber expertise available anywhere.

This selector guide is one of three that cover Dow Corning's full line of silicone rubber products. Feel free to request the other two:

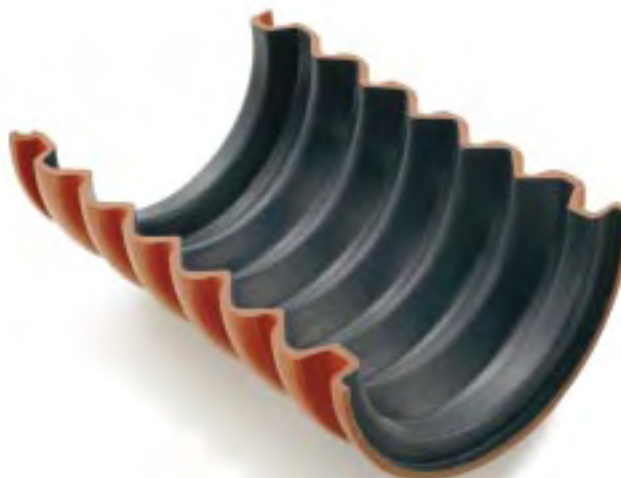
• *Silastic* Silicone Rubber Bases

Includes a full range of bases and modifiers for compounding. Bases are available in General Purpose grades with hardnesses ranging from 30 to 80 Shore A durometer. Includes high-strength, low-temperature and

conductive materials. Request form no. 17-1098-01 for information on our European and US product lines.

• *Silastic* Liquid Silicone Rubber

Materials offering advantages of flowable handling during mixing and fabrication, including time-saving automatic metering, intricate mold design capabilities, and quick cure. Request form no. 17-1099-01 for information on our European product line and US product lines.



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THE FUTURE.™**

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