



GE Silicones

Marine

Materials &
Applications

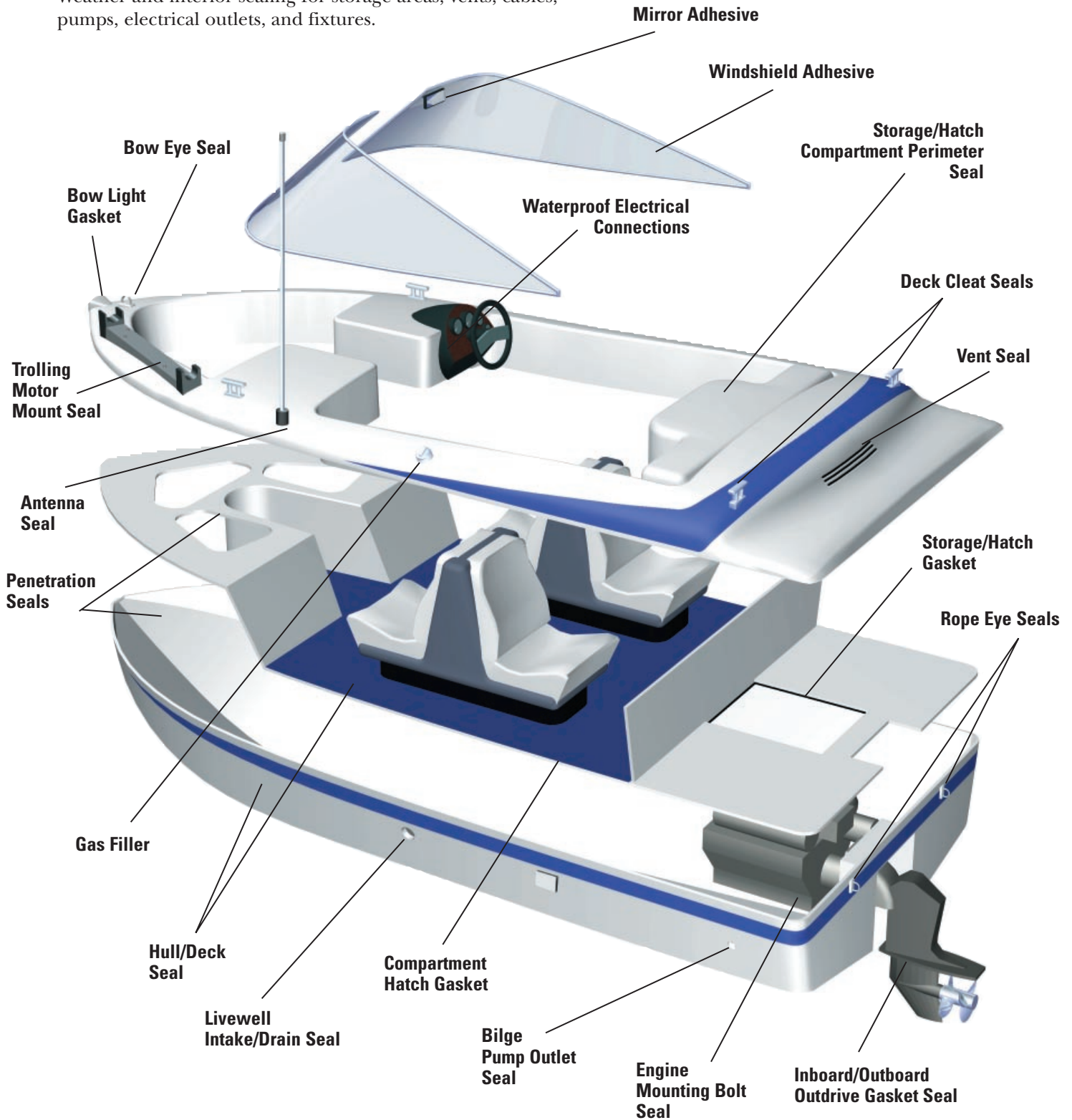




Marine Solutions At Work

These superior marine products find application in nearly every corner of a marine pleasure craft. Applications include:

- Adhesion for structural components, floors, windshields, molding, mirrors, reflectors, and emblems.
- Weather and interior sealing for storage areas, vents, cables, pumps, electrical outlets, and fixtures.





Marine Product/Application Selector Guide

	IS800.09 IS803	IS802 IS808	RTV102 RTV108	RTV103 RTV109	RTV5812 RTV5818	RTV5813	RTV5242 RTV5249	RTV5243	RTV5222 RTV5229	RTV5223	
Key Performance Properties	<ul style="list-style-type: none"> • General purpose paste • UL recognition • FDA, NSF & USDA compliance • Primerless adhesion to many substrates 		<ul style="list-style-type: none"> • Higher strength • FDA, NSF & USDA compliance • UL recognition • Primerless adhesion to many substrates 		<ul style="list-style-type: none"> • Low odor • Fastest tack-free time • Neutral cure modified alkoxy • Primerless adhesion • UL recognition • Non-corrosive 		<ul style="list-style-type: none"> • Non-corrosive • Fast cure rate • Neutral cure modified alkoxy • Primerless adhesion • UL recognition 		<ul style="list-style-type: none"> • High performance elongation • Neutral cure • Primerless adhesion to many plastics • UL recognition • Non-corrosive 		
Applications											
Trolling motor mount seal		•		•				•		•	
Compartment hatch gasket		•		•				•		•	
Penetration seal		•		•				•		•	
Storage/hatch compartment perimeter seal		•		•							
Bow light gasket						•		•		•	
Mirror adhesive						•		•		•	
Windshield adhesive		•		•							
Galley/head seal		•		•							
Marine radio/UHF/GPS antenna						•		•		•	
General sealing & waterproofing		•		•				•		•	
Galley/head vent seal						•		•		•	
A/C mount seal				•		•		•		•	
Glazing/hatch/portlight seal				•				•		•	
Refrigerator seal										•	
Motor mount seal		•		•		•					
Outboard engine seal		•		•		•					
Inboard/outboard outdrive gasket seal		•		•		•					
Livewell intake/drain seal						•					
Rope eye seal		•		•		•				•	
Deck cleat seal		•		•		•				•	
Bilge pump outlet seal		•		•		•				•	
Gas filler seal		•		•		•				•	
Hull/deck seal		•*		•*		•		•		•	
Bow eye seal		•		•		•				•	

*Dependent upon hull material



Product Profile Comparison

Acetoxy Cure

Neutral Cure — Non-corrosive

Property	Test Method	RTV100	IS800	RTV5800	RTV5220	RTV5240
Application rate, g/min	—	400	400	0	185	300
Hardness, Shore A	ASTM C-661	30	23	21	26	40
Tensile, MPa (psi)	ASTM D-412	2.75 (400)	2.06 (300)	1.86 (275)	2.60 (370)	2.50 (320)
Elongation, %	ASTM D-412	450	450	500	750	425



Application Guide

SIC Codes

1629, 1751, 3089, 3519, 3531, 3625, 3663, 3731, 3732, 7699

Frequently Asked Questions For The Marine Market

What characteristics differentiate silicones from competing organic materials, like polyurethanes, epoxies, or butyl rubber?

Silicones, in general, outperform non-silicone adhesives and sealants in such broad categories as flammability, weatherability, and UV stability. Their extended temperature range is substantially wider than that of organics, which means silicones maintain their adhesion and elastomeric properties in extreme cold or heat (-65°F to +400°F). If they are ever involved in a fire, they are non-flammable and non-toxic.

Are GE Silicones products cost effective?

The extraordinary performance of GE silicone materials helps minimize field failures and inferior results. You may be able to use less of a GE silicone product than competing materials. And ease of application translates into productivity gains on the shop floor. Although pound for pound the cost of GE silicone can be higher than that of competitive materials, when viewed from a “total systems cost” perspective, use of GE silicones may even be more economical.

How are GE Silicones products applied?

GE silicone materials are easily and efficiently applied with conventional caulking guns, or by bulk and/or automated methods. GE Silicones Application Development Centers, along with the company’s regional Field

Application Engineers, assist customers with comprehensive information and recommendations on how best to utilize GE silicone products in any application.

Your caulker states “Not for use underwater.” Why can it be used in marine applications?

GE silicone sealants should not be used in applications that call for continuous submersion, but occasional splashing is fine. Most of the applications are above water level. Sealant should not be *applied* under water.

Are silicones negatively affected by water?

No, these types of silicones (one-component moisture cure) cure by reacting with moisture in the atmosphere. After cure they do not absorb water.

What makes GE Silicones products such a great choice for marine pleasure craft?

Their reliability, ease of application, and long-term durability result in end-products that stay drier, sound quieter, last longer, look better, are easier and faster to assemble, and carry a better finish than products constructed with competitive materials.

The Pioneer in Silicones

Since the ground-breaking invention of silicones 50 years ago, GE has led the world in developing new silicone products and applications.

With a complete line of industrial coatings, adhesives, sealants, and gels, GE Silicones has helped customers solve problems and open markets in countless industries—including marine manufacturing.

GE also offers application development, prototyping, and analytical services. Product feasibility studies, process analyses, and testing capabilities at GE Silicones' laboratories can help customers enhance both quality and manufacturing.

Superior Products For Marine Manufacturers

Few applications can match the marine industry's rigorous requirements for adhesion, water resistance, and shock resistance. GE Silicones' four marine sealant series fulfill those demanding requirements and a host of others:

- **The IS800 series** offers an economical alternative for general marine applications.
- **The RTV100 series** is GE Silicones' premier line of high-strength acetoxy-cure sealants with FDA and UL recognition. It includes both paste and flowable grades.
- **The RTV5810 series**, one of GE Silicones' many modified alkoxy materials, provides very fast cure, good plastics adhesion, UL recognition, and non-corrosion when used with basic industrial metals.
- **The RTV5200 series** features fast, neutral-cure sealing, room-temperature curing, exceptional primerless adhesion, superb corrosion resistance, and hydrolytic stability. Manufacturers can use either RTV5220 (low modulus) or RTV5240 (fast cure), depending on key processing parameters.

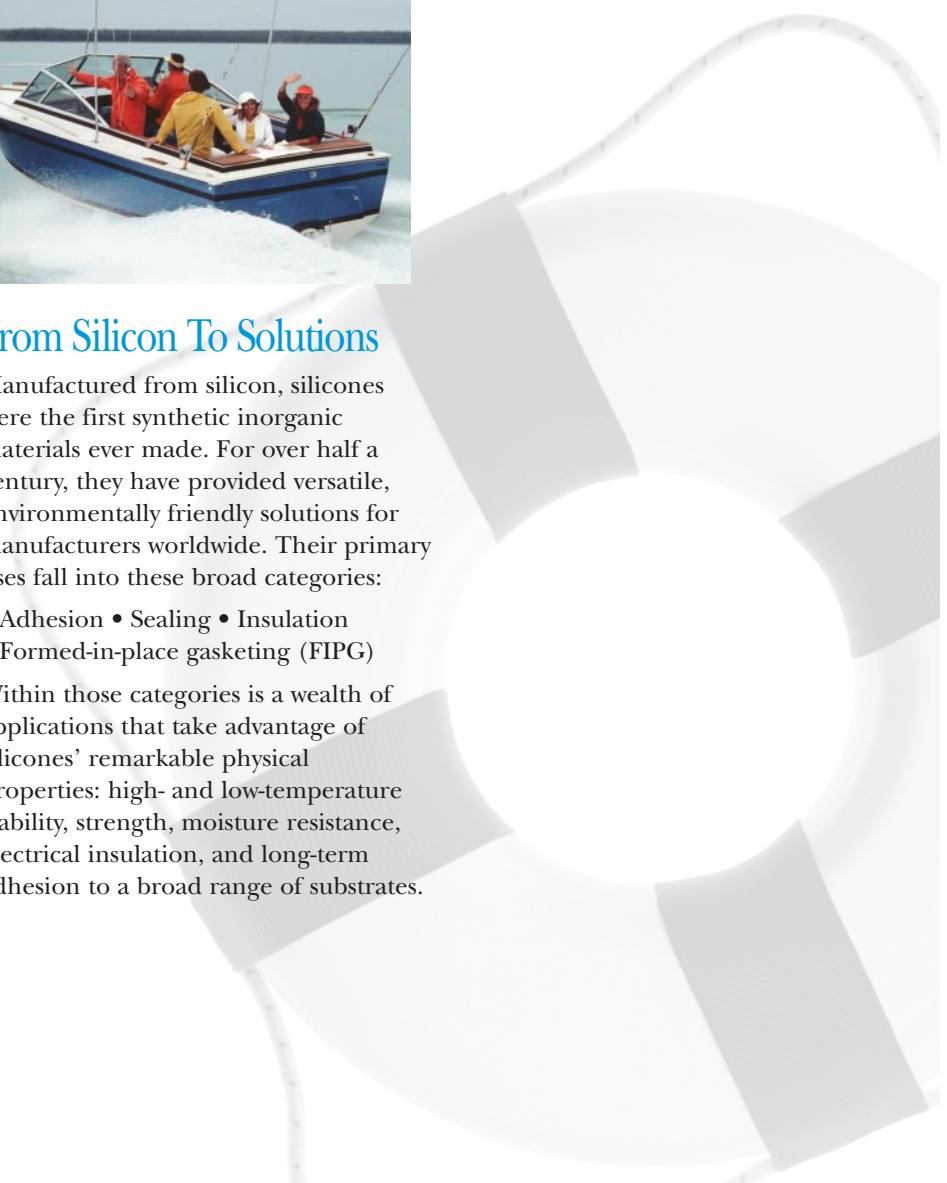


From Silicon To Solutions

Manufactured from silicon, silicones were the first synthetic inorganic materials ever made. For over half a century, they have provided versatile, environmentally friendly solutions for manufacturers worldwide. Their primary uses fall into these broad categories:

- Adhesion • Sealing • Insulation
- Formed-in-place gasketing (FIPG)

Within those categories is a wealth of applications that take advantage of silicones' remarkable physical properties: high- and low-temperature stability, strength, moisture resistance, electrical insulation, and long-term adhesion to a broad range of substrates.





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