

## Material Solutions for the Medical Industry

As industry leaders in elastomeric materials and PTFE constructions, Rogers Corporation delivers material expertise coupled with exceptional support from our technical and quality teams to ensure our customers' success in the latest medical applications.



Our BISCO® silicone and PORON® polyurethane material solutions provide dependable sealing, impact protection and vibration management, while our DeWAL® film and laminate materials provide lubricity, chemical resistance, and biocompatibility.

As new technologies emerge, regulatory and industry standards change, and patients' expectations of comfort rise, Rogers' extensive materials portfolio is there to meet the demand.

	<i>Application</i>	<i>Problem</i>	<i>Solution</i>	<i>Benefit</i>
<b>Medical Device, Respirator</b>	Vibration Management	Respiratory machines are often loud, discouraging use and keeping users awake	BISCO® MS80 silicone foam	Absorbs noise and vibration, holds up well to sanitization cycles, naturally resists fungal growth
<b>Medical Device, Electronics</b>	Gasketing/Sealing	Internal seals protecting electronics must remain functional	BISCO® HT-800 silicone series	Superior compression set and stress relaxation, invariable with temperature
<b>Electronic Display Gaskets</b>	Gasketing/Sealing	Poor sealing of display allows dust and other particulates to enter the display, potential for light leakage	PORON® 4701 Firm polyurethane	Superior resistance to compression set, wide range of CFD enables long term performance and design flexibility
<b>Laboratory Vial Protection</b>	Cushioning	Glassware and its contents are vulnerable to damage or breakage during transport, risk of contamination	BISCO® BF-1000 Very Soft silicone foam series	BISCO® silicone foam is adaptable and soft, allowing it to absorb shock while providing support for critical glassware
<b>Minimally Invasive Endoscopic Devices</b>	Insertion Guide Wrapping	Reduce friction during manipulation and insertion of endoscopic devices	DeWAL® DW-235 MSPU and other specialty laminate materials	Insertion guide wrap provides a low friction, low profile, inert and sterilizable surface
<b>Cold Supply Chain Transport</b>	Gasketing/Sealing	Dry ice used in transport of goods can activate too quickly, subcooling materials in transit	BISCO® BF-1000 Very Soft silicone foam series	Silicone material provides a functional seal at low temperatures, restricting air flow that could activate dry ice
<b>PPE</b>	Comfort, Sealing	Demand for disposable facemasks leads to shortages, high operational costs for medical facilities	BISCO® BF-2000 Ultra Soft silicone series	Silicone material withstands chemical cleaning and long-term wear, forms tight seal ensuring both safety and comfort. Material is low off-gassing and chemically resistant
<b>Cap Liners</b>	Gasketing/Sealing	Containers need tight seals to keep chemicals in and allow fumes to escape	DeWAL® 950, 953, 955 materials	Chemically resistant materials - at a variety of specifications – provide protection for any application
<b>In Vitro Diagnostics</b>	Gasketing/Sealing	Impermeable seal must be compatible with reagents and have ability to withstand repeated thermal cycles	BISCO® BF-1000 Very Soft or BISCO® HT-6240	BISCO® silicone foams and solids offer a wide range of compression qualities to suit various designs
<b>Medical Grade Filtration</b>	Gasketing/Sealing	Filter seals must ensure process reliability and product purity	BISCO® MS-1600 silicone series	Platinum cured silicone with USP Class IV and 21CFR177 certifications
<b>Vaporizer Heater</b>	Gasketing/Sealing	Heat tolerant material needed to withstand thermal cycles	BISCO® BF-2000 Ultra Soft silicone series	Medical grade materials withstand extreme temperatures over long periods of time



The information contained in this Application Note is intended to assist you in designing with Rogers' Elastomeric Material Solutions. It is not intended to and does not create any warranties, express or implied, including any warranty of merchantability or fitness for a particular purpose or that the results shown in this application note will be achieved by a user for a particular purpose. The user should determine the suitability of Rogers Elastomeric Material Solutions for each application.

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