



## Ideal Potting Compounds for Marine Applications

MG Chemicals polyurethane resins provide cost-effective alternatives to other chemistries for protecting printed circuit boards and electronic devices. These 2-part potting compounds are especially suitable where low temperature flexibility is required. They provide strong protection from moisture, sea water, solvents, and mechanical stress. They are an ideal potting compound for underwater applications.

### Features & Benefits

- 2:1 mix ratio
- Excellent dielectric properties
- Retains elastomeric properties down to -50 °C
- Superior physical and mechanical properties
- Variety of working times available
- RoHS compliant

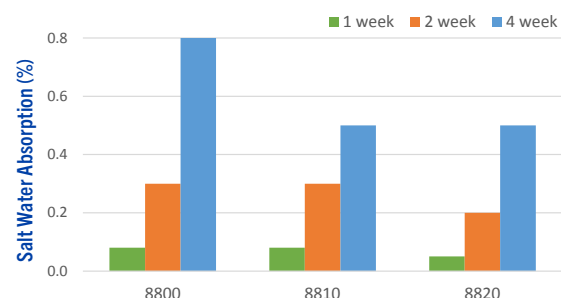
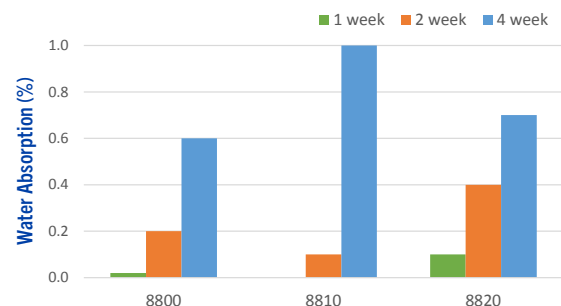
### Applications

- IP protection
- Undersea telecom infrastructure
- Circuits in mining equipment
- Encapsulating delicate surface mount devices
- Cable jointing

**8800** — Black, flexible, and short working time. Maintains excellent flexibility at low temperatures and creates minimum stress on circuit boards and surface-mounted devices.

**8810** — Black, rigid, long working time, and low exotherm. Provides excellent moisture resistance.

**8820** — Black, rigid, high temperature, and low exotherm. Offers properties similar to epoxy compounds, but with exceptional low temperature stability.



# Urethane Potting Compounds



	8800	8810	8820
<b>UNCURED PROPERTIES</b>			
Color	Black	Black	Black
Mixed density [g/mL]	1.1	1.1	1.1
Viscosity [Pa·s]			
Part A	300	320	10 700
Part B	640	220	250
Mix ratio by volume [A:B]	2:1	2:1	2:1
Mix ratio by weight [A:B]	7.4:1	1.7:1	1.85:1
Hardness	74D	80D	73D
Working time [min]	10	45	15
Based on 100 g sample. Varies by volume and geometry.			
Cure time [min @ °C]	30 @ 65 25 @ 80	60 @ 65 45 @ 80	120 @ 65 90 @ 80
<b>CURED PROPERTIES</b>			
Tensile strength [N/mm <sup>2</sup> ]	4.5	10	15
Compressive strength [N/mm <sup>2</sup> ]	—	253	295
Lap shear [N/mm <sup>2</sup> ]			
Stainless steel	4.4	4.9	13
Aluminum	3.1	7.5	12
TC @ 25 °C [W/(m·K)]	0.3	0.3	0.3
T <sub>g</sub> [°C]	11	44	44
CTE prior T <sub>g</sub> [ppm/°C]	86	83	94
CTE after T <sub>g</sub> [ppm/°C]	221	210	195
Resistivity [Ω·cm]	8.4 x 10 <sup>12</sup>	1.9 x 10 <sup>13</sup>	1.4 x 10 <sup>13</sup>
Breakdown voltage [V]	46 200	50 900	47 300
Dielectric strength [V/mil]	370	407	380
Service temperature [°C]	-50 — 120	-50 — 120	-50 — 150
Intermittent temperature [°C]	130	130	175
<b>AVAILABLE PACKAGING</b>			
Net contents	375 mL (2 bottle kit) 2.55 L (3 can kit) 10.8 L (3 can kit) 60 L (3 pail kit)	375 mL (2 bottle kit) 2.55 L (3 can kit) 60 L (3 pail kit)	375 mL (2 bottle kit) 2.55 L (3 can kit) 10.8 L (3 can kit) 60 L (3 pail kit)

