

Application Instructions

M-1 Marine Grade Structural Adhesive/Sealant is a gun grade material that is applied from caulking guns, high viscosity pump guns, or automated bead application equipment. This product sets rapidly upon exposure to moisture. Open containers must be quickly protected from atmospheric moisture.

Mask off areas that must be protected from adhesives. Allow the assembly to cure for 30 minutes to an hour before handling or machining. When bonding two impermeable materials, brief separation and reassembly of the bonding surfaces to expose the adhesive to atmospheric moisture will often accelerate the cure.

In extremely dry environments, local humidification may be needed to initiate curing. Low temperature will retard the cure reaction and heat will accelerate the cure reaction. Optimum application is between 60°F to 100°F (16°C to 38°C).

Substrate Preparation

Bonding surfaces must be clean, dry and free of oxidation, mill oils, wax, and release agents that may interfere with adhesion. Dry and fully cure painted surfaces before bonding. Alcohol and ammonia water are effective cleaners for surface preparation. Abraded or irregular surfaces are acceptable bonding surfaces but must be clean and sound. For use with teak, wipe with alcohol prior to application to remove surface oils

Storage

Store original, unopened containers in a cool, dry area. Protect unopened containers from water, heat and direct sunlight. Elevated temperatures will reduce shelf life. **M-1 Marine Grade Structural Adhesive/Sealant** will not freeze.

Shelf Life

Twelve months from date of manufacture when stored at 70°F / 21°C with 50% relative humidity. High temperature and high relative humidity may significantly reduce shelf life.

Pails have a shelf life of six months.

Limitations

- Not intended for engine compartment use
- Horizontal applications will require tooling.
- In areas where prolonged chemical exposure is anticipated, contact Technical Services for recommendations.
- Allow treated wood to "cure" for six months prior to application per APA guidelines.
- Do not store in elevated temperatures.
- Remove all coatings and sealers before application.
- Please contact customer service for application guidelines with temperatures below 32°F (0°C).
- Test and evaluate all paints before application. Polyurethane and oil based paints may dry slowly.

Typical Physical Properties		
Viscosity	1,200,000 +/- 400,000 cp at 72°F (22°C)	Brookfield RVF, TF spindle, 4 RPM
Density	11.8 +/- 0.2 lbs per gallon	ASTM D1475
Tack Free Time	20 +/- 10 min	45 +/- 5 % R.H.
Elongation at Break	275 - 325%	ASTM D412
Tensile Strength	325 - 375 psi	ASTM D412
Hardness Shore A	38 - 42	ASTM C661
Low Temp. Flex	-10°F (-23°C) Pass 1/4 inch mandrel	ASTM D816
VOC Content	Less than 15 g/l	ASTM D2369
Shrinkage	No visible shrinkage after 14 days	
Service Temp.	-40°F to 200°F / -40°C to 93°C	

Applications	Substrates
Wood to fiberglass	Teak deck planking
Portlights	Fiberglass
Deck fittings	Gelcoat
Fiberglass to fiberglass	Metal
Moldings	Glass
Struts and planking	Polycarbonate
Stern joints	Most plastics*

*Test all plastic substrates for bond strength and compatibility before application.

All properties described in this document are derived from testing conducted in laboratory conditions. Properties and performance will vary depending on environmental conditions and application technique. Test and evaluate to determine appropriate usage. Visit www.chemlink.com for the Safety Data Sheet, Technical Data Guides and full warranty for this product.



M-1[®] MARINE