MT-13®

Epoxy Adhesive Cement

www.smooth-on.com

PRODUCT OVERVIEW

Smooth-On **MT-13®** is a premium performance epoxy for applications requiring maximum holding power and water resistance. **MT-13®** is a two component epoxy adhesive cement which is mixed in equal parts by volume (100A/123B by weight) and gels in a few hours. It develops handling strength in 16 hours and adheres extremely well to both porous and non-porous surfaces. **MT-13®** is widely used by the boating industry for assembly and general repair. **MT-13®** also maintains holding power under extreme cold conditions.

TECHNICAL OVERVIEW

Mix Ratio: 1A : 1B by volume, 100A:123B by weight

Mixed Viscosity, Light-paste

Specific Gravity, g/cc: 1.37

Pot Life: 35 min. (73°F/23°C)

Cure time: 16 hours (73°F/23°C)

Color: White

Barcol 935 Hardness: 72

Tensile Strength, psi: 4,300

Elongation @ Break: 0.8%

Sag Resistance: 1/16"

Modulus of Elasticity in Tension, psi: 285,000

Modulus of Elasticity in Compression, psi: 165,000

Compressive Yield Strength, psi: 8,700

* All values measured after 7 days at 73°F/23°C

PROCESSING RECOMMENDATIONS

PREPARATION...Safety - Use in a properly ventilated area ("room size" ventilation). Wear safety glasses, long sleeves and rubber gloves to minimize contamination risk.

Store and use material at room temperature (73°F/23°C). This product has a limited shelf life and should be used as soon as possible.

A clean, dry surface is a necessary prerequisite for adhesive bonding. Adhesives will stick to either the surface of which a bond is desired or to that film of extraneous material directly on that surface. Rarely can a structural adhesive penetrate through surface contaminants to provide an optimum bond on an unclean surface.

Porous materials are simple to bond, provided they are dry. The surface should be sanded till clean and free from dust. Non-porous surfaces, such as found on metal and plastic materials, should be degreased, dried and roughened by sanding, sandblasting or chemical etching. The etched or sandblasted surfaces should be covered within a few hours of treatment to prevent contamination. **Handlers should wear clean cotton gloves to prevent body oils from contaminating the clean surfaces.**

Epoxy adhesives do not perform well on metals such as nickel, chromium, tin or zinc nor on soft thermoplastics like polyethylene. Refer to the Preparation of Surfaces for Adhesive Bonding technical bulletin.

Because no two applications are quite the same, a small test application to determine suitability for your project is recommended if performance of this material is in question.

MEASURING & MIXING...

Measuring & Mixing - Measure equal amounts of Part A and B(100A:123B by weight) into a clean mixing container. After dispensing required amount of Parts A and B into mixing container, mix thoroughly for 3 minutes making sure that you scrape the sides and bottom of the mixing container several times. MT-13 contains no solvent and may be applied in thicknesses up to 1 inch. However, maximum adhesion is achieved by applying MT-13 in thin sections.

ADHESIVE PROPERTIES

(Tensile Shear Adhesion - ASTM D1002)

Substrate	Exposure	Test Temp	Value, psi
AL 2024-T-3	None	-50°C	3000
AL 2024-T-3	None	25°C	3100
AL 2024-T-3	None	80°C	900
AL 2024-T-3	30 days in tap water @ 25°C	25°C	3100
AL 2024-T-3	7 days in 100% RH @ 65°C	25°C	3100
Cold Rolled Steel	None	25°C	5100

Safety First!

The Material Safety Data Sheet (MSDS) for this or any Smooth-On product should be read prior to use and is available upon request from Smooth-On. All Smooth-On products are safe to use if directions are read and followed carefully.

Be Careful! MT-13® Part-A is irritating to the eyes and skin. Avoid prolonged or repeated skin contact to prevent possible sensitization. Use only with adequate ventilation. If contaminated flush eyes with water for 15 minutes and seek medical attention. Remove from skin with waterless hand cleaner then soap and water. Refer to MSDS. MT-13® Part-B causes burns to the eyes. May burn the skin and cause sensitization. Vapors irritate the respiratory tract. If contaminated, flush eyes with water for 15 minutes and seek medical attention. Remove from skin with soap and water. Use only with adequate ventilation.

Important! The information contained in this bulletin is considered accurate. However, no warranty is expressed or implied regarding this accuracy, the results to be obtained from the use thereof, or that any such will not infringe a patent. User shall determine beforehand the suitability of this product for the intended application and assume all risk and liability in connection therewith.

Call Us Anytime With Questions About Your Application.

Toll-free: **(800) 381-1733** Fax: **(610) 252-6200**

The new **www.smooth-on.com** is loaded with information about mold making, casting and more.