



FE180A TDS FITTING EPOXY

OUTSTANDING BOND STRENGTH

“The Professional’s Choice”



TDS FE-180A Fitting Epoxy has been formulated to achieve **outstanding bond strength** to most common marine materials including teak, other woods, fiberglass, aluminum and steel. The specially-engineered fillers allow the FE-180A to display **superior wet-out of the bonding surfaces** resulting in both a mechanical and chemical bond to adhere to even the most challenging substrates. Once cured, the FE-180A Fitting Epoxy provides excellent water-resistance, flexibility and internal strength which ensures the long term stability of the composite structure. TDS FE-180A Fitting Epoxy will cure in temperatures as low as 50° F / 10° C. Developed to be user-friendly, the simplified 1:1 mix ratio allows a batch of any size to be easily measured and mixed. Once thoroughly mixed, the material can be spread immediately, requiring no induction time. At 77° F / 25° C, a layer of FE-180A applied with a 3/16" / 4,5mm toothed trowel will have an open time of approximately 120-130 minutes, the material will set in approximately 6-8 hours and complete cure will be achieved in approximately 24-36 hours. TDS Fitting Epoxy is DOT non-corrosive so it does not require

hazardous labeling for shipment.

Mixing Instructions: Stir both A & B components before combining, especially if less than a full container is being used. Mix by volume: 1 part base resin with 1 part activator. Mix well, scraping the sides of the container, until you have achieved a uniform tan color with no streaks. Mixing **MUST** be thorough to ensure a good cure. **DO NOT ADD ANY FILLERS OR REDUCER.** Application is not recommended below 50° F / 10° C.

All surfaces must be clean, dry, and free of any dirt, grease, wax, etc. before beginning any surface preparation.

Steel should be sandblasted or ground to clean white metal per SSPC-SP63 to a 0,07 – 0,1 mm profile. Wash with Metal Prep. Do not wipe surface with rags due to the possibility of leaving a fiber pathway through the seal coat. Apply 2-3 coats of a commercially approved epoxy primer such as Awl-Grip High-Build, Devoe Epoxy Primer or equivalent, adequately filling the blast profile.

Aluminum should be sandblasted or ground



with 24 grit disc pads to a 3-4 mil profile. Do not wipe surface with rags due to the possibility of leaving a fiber pathway through the seal coat. Then follow with a vinyl wash primer or Alumaprep followed by a mil/spec zinc or strontium chromate corrosion-inhibiting primer, then AwlGrip High-Build epoxy, Devoe Epoxy Primer, or equivalent.

Fiberglass/Gelcoat should be ground with 36-40 grit paper until no shiny surface is present, then wiped down with acetone.

Wood should be scuffed with 36-40 grit paper. Do not use polyester resin or wood sealers that contain oils.

For all faired surfaces, seal the fairing compound with a high-quality 100% solids epoxy. After complete cure, the sealer/primer must be aggressively sanded before bonding with FE-180A. Regardless of the substrate, it is mandatory that a sample adhesion test be performed to the primed/sealed surface at least 24 hours prior to the final glue-down.

TDS FE-180A will be usable for up to 24 months under proper storage conditions (50-95° F / 10-35° C) in a sealed container. Prolonged storage may cause the hardener to darken. After prolonged storage, it is advisable to test a small mix to make sure it is viable. Be sure to pre-mix the individual containers before testing. Freezing may cause crystallization in the resin side. If this occurs, warm to 130-150° F / 55-65° C and stir to melt crystals. The resin's properties will be unaffected. As with all epoxies, Teakdecking System's Fitting Epoxy can cause skin and eye irritation upon frequent or prolonged

exposure. Avoid contact with skin and eyes by the use of gloves, goggles, impervious clothing and barrier creams. In case of accidental contact, wash skin thoroughly with soap and water. In the event of eye contact, flush eyes with water for 15 minutes and seek medical attention. See MSDS for further information and first aid measures.

PROPERTY	VALUE
Specific Gravity-Base A	1.05
Specific Gravity-Activator B	1.00
Flash Point	>220°F / 104° C
Gel Time (8-oz Mix)	70 Minutes
Open Time – 3/16" / 4,5mm	120-130 Minutes
Film Set Time – 3/16" / 4,5mm @ 77° F / 25° C	6 Hours
Film Set Time – 3/16" / 4,5mm @ 40° F / 4,4° C	12 Hours
Heat Distortion Temperature	129° F / 54° C
Peak Exotherm – 100g Mass	265° F / 129° C
Adhesion To Teak	Substrate Failure
Adhesion To Phenolic	Substrate Failure
Compressive Strength	14,300 psi
Compressive Modulus	388,000 psi
Tensile Strength	7,600 psi
Tensile Modulus	425,000 psi
Tensile Elongation	4.5%
Flexural Strength	13,600 psi
Flexural Modulus	415,000 psi
Hardness – Shore D	76-78
Adhesion To Aluminum	>400 psi
Adhesion To Steel	>450 psi



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