

RepPoxy™ DBA - High Modulus Paste for Structural Repair & Anchoring

DESCRIPTION:

RepPoxy DBA is a two-component, 1:1, non-sag, high modulus, high strength, 100% solids, moisture tolerant, solvent free, structural epoxy adhesive paste developed specifically for use as a matrix with the **TuffWrap™** and **TuffGlass™** Structural Strengthening System.

FEATURES:

- Excellent Adhesion to Most Substrates
- Fast Set or Extended Pot Life Available
- High Abrasion and Shock Resistance
- Ideal for Vertical and Overhead Repairs
- Pick Proof Sealant

USES:

- Bonding of Concrete, Metals, and Wood
- Grout Bolts, Dowels, and Pins
- Level Small Surface Defects and Bug Holes
- Provide a Smooth Surface to Apply FRP
- Sealing of Cracks and Injection Port Setting

TECHNICAL DATA:

RepPoxy DBA conforms to ASTM C-881, Type I, II, IV, and V, Grade 3, Classes B & C, & AASHTO M-235

COVERAGE GUIDE:	
FRP Laminates	100 sqft/gallon or 1 gallon/100 sqft (0.4 liters/sqm)
Flat Bonding	125 sqft/gallon or 1 1/4 gallon/100 sqft (0.51 liters/sqm)
Crack Pasting	50 sqft/gallon or 2 gallons/100 sqft (0.80 liters/sqm)
1 gallon yields	231 cuin (0.00379 cum) of paste adhesive

PREPARATION:

Maximum adhesion is obtained when surfaces to be bonded are free of oil, grease, rust, loose particles, and other contaminants. Abrasive blast cleaning and mechanical removal methods are recommended.

MIXING:

Before blending **RepPoxy DBA** Resin and Hardener, stirring may be necessary, especially in case of filled materials. Place Side A Resin and Side B Hardener into a clean cylindrical container according to the specified mixing ration. Mix for 2-1/2 to 3 minutes or until thoroughly

blended using either a rapid pail mixer “or” a 1/2+ HP heavy-duty, variable speed drill and mortar paddle. Mix at slow speed (less than 850 rpm) to avoid air entrainment. If hand mixing, periodically scrape the walls and the bottom of the container to avoid unmixed material which will result in soft spots after curing. For room temperature cure systems, once the Resin and Hardener are mixed together, an exothermic reaction takes place developing some heat which accelerates the process of cure. The viscosity of such a self-heating system first decreases then, at the end of the GEL TIME, increases until the material gels. At this moment the temperature of the product keeps rising, and in the case of large batches can result in overheating with unpleasant fumes and smoke. Do not mix more material than you are able to apply in one step. Remember, you will have less working time at higher temperatures.

PLACEMENT:

RepPoxy DBA can be applied by putty knife, trowel, or bulk caulking gun. For filling bug holes, use very thin layers and work into the hole thoroughly in order to prevent bridging the holes rather than filling. As a structural adhesive, apply the neat mixed **RepPoxy DBA** to the prepared substrate. Work into the substrate for positive adhesion. Secure the bonded unit firmly into place until the adhesive has cured. The glue line should not exceed 1/8" (0.3175 cm). To seal cracks for injection grouting, place the neat mixed material over the cracks to be pressure injected and around each injection port. Allow sufficient time to set before pressure injecting. For routed vertical and overhead patching place the prepared mortar in void, working the material into the prepared substrate, filling the cavity. Strike off level. Lift line should not exceed 1/8" (0.3175 cm).

CURING/DRYING TIME:

Tack Free Time: 2-3 hours
Initial Cure 24 hours
Final Cure 7 days

CLEAN UP:

Uncured **RepPoxy DBA** can be removed from tools and equipment with isopropyl alcohol, xylene, or mineral spirits. Dispose of in accordance with local, state, and federal disposal regulations. Mechanical removal is necessary for cured material. Cured resins are innocuous.

PACKAGING:

2-gallon kits: 1 gallon (3.78 liters) Side-A and 1 gallon (3.78 liters) Side B

10-gallon kits: 5 gallon (18.93 liters) Side-A and 5 gallon (18.93 liters) Side B

600 ml dual cartridge

STORAGE:

The material should be stored between 40°F – 95°F (4°C – 35°C) in a cool, dry area away from direct sunlight.

SHELF LIFE:

Shelf life of properly stored, unopened containers is 24 months (two years). Excessive temperature differential and / or high humidity can shorten the shelf life expectancy.

LIMITATIONS:

Do not thin with solvents, as this will prevent cure. Not recommended for any application where there may be a sustained tensile load, including overhead applications. Not designed to stop seeping or flowing water. Remove standing water before applying in moist or damp conditions. Always test a small amount to ensure that the product is mixed thoroughly and that the material will harden properly before proceeding. Minimum age of concrete must be 3-7 days, depending on curing and drying conditions.

CAUTION:

Avoid breathing of vapors. Forced local exhaust is recommended to effectively minimize the exposure. NIOSH approved, organic vapor respirators and forced exhaust are recommended in confined areas, or when conditions (such as heated polymer, sanding, etc.) may cause high vapor concentrations. Do not weld on, burn or torch the **RepPoxy DBA** or any epoxy material. Hazardous vapor is released when an epoxy is burned. Avoid skin or eye contact. Wash skin with soap and water if contact occurs. If eye contact occurs flush with water for 15 minutes and obtain medical attention.

READ SDS PRIOR TO USING PRODUCT.**WARRANTY:**

Due to the use of this product beyond our control, we assume no liability for damages of any kind, and the user accepts the product "as is" and without warranties, expressed or implied, from either **TuffTex Materials, Inc.** or its agents. The suitability of the product for an intended use shall be solely up to the user. Our only obligation shall be to replace or pay for any material proved defective, with our liability limited to the purchase price of materials supplied by us.

DISCLAIMER:

Refer to the SDS sheet before use. The information and recommendations set forth in this Product Data Sheet are based upon tests conducted by or on behalf of TuffTex Materials. Such information and recommendations set forth

herein are subject to change and pertain to the product offered at the time of publication. Published technical data and instructions are subject to change without notice. Contact your local TuffTex distributor or technical representative for additional technical data and instructions.

TYPICAL PROPERTIES:					
Mixing Ratio by Volume (A:B)				1:1	
Mixed Color				Gray	
Gel Time (ASTM 881)				55 minutes	
Working Time				45 minutes	
Full Cure				24 hours	
Glass Transition Temp., Tg (ISO 11357-2)				129 °F (54 °C)	
CURED PROPERTIES:					
Property	Cure Time	ASTM Standard	Units	Sample Conditioning Temperature	
				Class B	Class C
				40 °F (4 °C)	75 °F (24 °C)
Gel Time – 60 Gram Mass	--	C881	Min	30	23
Compressive Yield Strength	7 day	D695	psi (MPa)	10,490 (72.3)	10,520 (72.5)
Compressive Modulus			psi (MPa)	575,000 (3,964.5)	591,500 (4,078.2)
Bond Strength Hardened to Hardened	2 day	C882	psi (MPa)	2,520 (17.4)	2,850 (19.7)
	14 day		psi (MPa)	3,070 (21.2)	3,220 (22.2)
Bond Strength Fresh to Hardened				psi (MPa)	1,720 (11.9)
Viscosity	--	C881	--	Non-Sag	
Heat Deflection	7 day	D648	°F (°C)	143 (61.7)	
Water Absorption	14 day	D570	%	0.10	
Linear Coefficient of Shrinkage	--	D2566	%	0.0006	