



Technical Data Sheet



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FRP – Fiber Reinforced Polymer

PREMIUM VERTICAL ADHESIVE

PRODUCT DESCRIPTION

FIBER REINFORCED POLYMER (FRP) VERTICAL ADHESIVE is a unique NON-SAG PREMIUM adhesive. This adhesive will not sag, drip or run and is excellent for use in applications requiring vertical and horizontal hold. FRP Vertical Adhesive is waterproof and withstands temperatures from between -40 and 150 °F / -40 and 66 °C allowing it to maintain its extreme bond and flexibility—even in extreme weather conditions! FRP dries clear and is paintable and sandable!

WHERE TO USE / APPLICATIONS

- cracks in vertical brick & mortar
- HVAC systems maintenance
- roof flashing/shingles maintenance
- and much more!

FEATURES AND BENEFITS

PAINTABLE – paint to match surrounding area or make UV resistant after fully cured

SANDABLE – sand adhesive overage for smooth column surface

WATERPROOF – impervious to water after complete cure so works great outdoors

NON-FLAMMABLE

TECHNICAL INFORMATION

PROPERTIES	
UNCURED MATERIAL	
Color:	Clear (color matching available)
VOC:	2.0 grams/liter
Solvent:	Perchloroethylene
Non-flammable:	Yes (uncured liquid state)
Density:	11.0 +/-0.1 lbs/gal
Solids:	30% by weight, 40% by volume
Viscosity:	Non-sag; 100,000 cps
Tack time:	~ 4 minutes
Set time:	20 minutes*
Full cure time:	Thin film: 24 hours / Thick film: 48-72 hours
Storage:	Ideal temperature range: 50 to 90 °F (10 to 32 °C). However, fully cured adhesive can withstand temperatures from -40 to 180 °F (-40 to 82 °C). Product may thicken when stored in colder temperatures. If product thickens from colder temperatures, warm to room temperature before use.
Freeze/thaw stability:	Stable, allow product to warm to room temperature before using
Shelf life:	2 year (unopened)
<i>*Depending on material, humidity and temperature.</i>	
CURED MATERIAL	
Chemical resistance:	Excellent to water, dilute acids and dilute bases
Hardness:	80 Shore A
Dielectric strength:	400V/mil (ASTM D-149); this is the maximum voltage that can be applied to a given material without causing it to break down
Tensile strength:	3800 lb/in ² (ASTM D-412)
Elongation:	900% (ASTM D-412)
Temperature range:	-40 to 150 °F (-40 to 66 °C)
UV resistance:	Paint-over or use E6800
Paint-over time:	24 hours



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STRENGTH TEST		
ADHESIVE	FRP Split Columns (non-load bearing columns)	Polyurethane Foam (capital material)
FRP PREMIUM COLUMN ADHESIVE	43	54
PL Polyurethane*	21	19
PL-400 Construction Adhesive*	36	25

180° Peel Test based on ASTM D 903 (November, 2007)

Avg. Max. Load Measure in Lb. F/in. (pounds per square inch)

*Competitor products

CHEMICALS THAT HAVE LITTLE OR NO EFFECT ON FRP – Fiber Reinforced Polymer

Acetic acid (5% and 10%)	FRP exhibits excellent resistance to water, dilute acids and dilute bases. Thin films of FRP were immersed in various chemicals for two weeks and exhibited weight gains of less than 2% and tensile strength loss of less than 10%. These chemicals are listed on the left. All percentages are given by weight unless otherwise noted.
Ammonium hydroxide (3.4%)	
Ammonium nitrate (50%)	
Antifreeze	
Beer (3.2% alcohol by volume)	
Boric acid (3.1%)	
Distilled water	
Hydraulic oil	
Lactic acid (3.8%)	
Milk (fresh, tested at 40 °F)	
Motor oil (30w)	
Nitric acid (10% and 20%)	
Oxalic acid (3.1%)	
Phosphoric acid (30% and 60% as P ₂ O ₅)	
Potassium hydroxide (3.4%)	
Sodium carbonates (2.7%)	
Sodium chloride (10%)	
Sulfuric acid (3% and 10%)	
Wine (20% alcohol by volume)	

SOLVENTS THAT DISSOLVE FRP – Fiber Reinforced Polymer

Chevron solvent 1100	These are common solvents that dissolve FRP when hardened samples were immersed. The dissolution with these solvents was not instantaneous and therefore does not preclude usage in all cases. Applications were an occasional splash or brief exposure is expected may be acceptable. Test a small area before full use.
Chlorothane NU	
Cyclohexane	
Gasoline	
Methylene chloride	
Perchloroethylene	
Propyl acetate	
Toluene	
1, 1, 1-Trichloroethane	



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DIRECTIONS and APPLICATION NOTES

Read directions and test small area before use.

- Step 1 Surface should be clean, dry and free of dirt. For best results, lightly roughen surface before use.
- Step 2 Trim end of nozzle. Puncture inner seal.
- Step 3 Product can be applied between 50 and 90 °F / 10 and 32 °C.
- Step 4 Apply directly to surfaces to be bonded or repaired. Allow 24 hours for curing— Maximum bond strength may not be reached for up to 72 hours.
- Step 6 Clean uncured adhesive with acetone or citrus-based solvents. Cured material may be removed by cutting or scraping. For prolonged storage after opening, cover or plug the opening of the nozzle.

Product is paintable and immediately resistant to precipitation upon application.

For technical assistance, call 800.767.4667.

HEALTH and SAFETY

Contains perchloroethylene and drometrizole. Harmful if inhaled. May cause dizziness, headache or nausea. May cause skin and respiratory tract irritation. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful. Exposure may cause kidney damage. May produce allergic skin reaction. **WARNING;** This product contains a chemical known to the State of California to cause cancer. Avoid contact with eyes and skin. Use in a well ventilated area. To avoid breathing vapors, open windows and doors or use other means to ensure fresh air entry during application and curing. Wash hands after use. If allergic reaction develops, discontinue use.

First Aid: If you experience difficulty in breathing, move to fresh air. If symptoms persist, get medical attention. In case of eye contact, flush immediately with plenty of water; for skin, wash thoroughly with soap and water. If swallowed, do not induce vomiting. Keep out of reach of children..

Before working with this product, read and become familiar with information concerning hazards, proper use and handling. SDS is available on line at: eclecticproducts.com/downloads/sds/frp_english.pdf ; to request a hard copy of the SDS, please send an e-mail to sds@eclecticproducts.com or call 800.333.9826.

LIMITED WARRANTY

The product is warranted against any defect in materials or workmanship under normal use for a period of 180 days after the date of purchase. The product is also warranted under any implied warranties provided under applicable state law, including, without limitation, the implied warranty of merchantability and the implied warranty of fitness for a particular purpose, for a period of 180 days after the date of purchase. This warranty covers only the original buyer of the product. For warranty service, the buyer should contact the store where the product was purchased, or write Eclectic Products, Inc., P.O. Box 4450, Pineville LA 71361 or call 800.767.4667. This warranty gives you specific legal rights, and you also have other rights, which vary from state to state.