A strong-bonding, low-odor adhesive for interior applications

PRODUCT DESCRIPTION
LIQUID NAILS® FRP Fiberglass Reinforced Plastic Panel Adhesive, FRP-310, is a strong-bonding, low-odor, low-solvent, high-strength adhesive for interior applications. It features excellent adhesion and low VOC-content.

RECOMMENDED FOR
Bonding FRP and NRP (non-reinforced plastic) panels to:
- Cured concrete
- Cement backerboard
- Wood
- Green board
- Drywall

NOT RECOMMENDED FOR
- Installing panels on painted surfaces
- Bonding tileboard to concrete or cementboard

PRODUCT ADVANTAGES
- VOC compliant
- Low odor
- Will not attack foam insulation
- Trowel-grade adhesive
- Water clean up
- Strong bonding
- Will not burn through panels
- Exceeds ASTM C-557

Please research all installation instructions and read entire label and Material Safety Data Sheet for safety, health & environmental information prior to use. See other cautions on last page.
SURFACE PREPARATION
For best results, adhesive and substrates should be between 50°- 90° F. Surfaces must be structurally sound and dry, free of grease, dirt, dust, wallpaper, paint or anything that would interfere with a bond. Level any high spots and fill all cracks and holes with appropriate fillers.

APPLYING THE PRODUCT
1. Cut and pre-fit panels.
2. Spread adhesive to cover entire panel. For FRP (fiberglass reinforced panels) and NRP (non-reinforced panels) or any other type of plastic panels, use a 3/16" v-notched trowel with 5/16" lands. For tileboard, medium density fiberboard panels, and any other wood-based panel, use a 1/8" v-notched trowel.
3. As soon as adhesive is spread over entire panel and before adhesive skins over (within 45 minutes), set panel in position and press against wall.
4. Press panel firmly into place, working from the center to the edges until full contact has been made.
5. Bracing may be required if walls or panels are not completely straight.
6. For channel moldings, permanent fasteners, and panel spacings, follow panel manufacturer’s specifications.

For application over concrete: Concrete surfaces must be dry and completely cured. When installing panels over below-grade concrete, where moisture can penetrate, you must first attach furring strips to the concrete block and then attach a solid surface, such as wood or drywall, to those furring strips. Then continue with standard application.

Working time: Up to 45 minutes. Very warm, dry conditions decreases working time.

CLEAN UP
Wet adhesive can be removed with water. Scraping, followed by wiping with mineral spirits for dried material. Note warnings on mineral spirits container.

DISPOSAL
Contains organic solvents which may cause adverse effects to the environment if disposed of improperly. Place empty containers in normal refuse for disposal. Contact your sanitation department or household hazardous waste coordinator for information concerning possible re-use or disposal of unused solvent-containing adhesives and/or sealants.

LIMITED WARRANTY
PPG warrants satisfaction with this product when handled and applied according to label instructions. If product is not as warranted, PPG will, at your option, furnish replacement product or refund the purchase price. Please call 1-800-634-0015 for details. This limited warranty excludes labor or the cost of labor and is given as the exclusive warranty and remedy. No warranty of merchantability, fitness for purpose or other warranty, express or implied, is made. PPG shall not be liable for any special, incidental or consequential damages. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above exclusions/limitations may not apply. This limited warranty gives specific legal rights; you may have other rights that vary by state.

WARNING! HARMFUL IF INHALED. MAY CAUSE CENTRAL NERVOUS SYSTEM EFFECTS, INCLUDING DIZZINESS, HEADACHE OR NAUSEA. CAUSES EYE, SKIN AND RESPIRATORY TRACT IRRITATION. USE ONLY WITH ADEQUATE VENTILATION. KEEP OUT OF THE REACH OF CHILDREN.

Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal. Contains Crystalline Silica. If sanding, wear a dust mask to avoid breathing of sanding dust. Avoid contact with eyes and skin. FIRST AID: For skin contact, wash thoroughly with soap and water. If any product remains, gently rub with petroleum jelly, vegetable or mineral/baby oil then wash again with soap and water. Repeat as needed. Remove contaminated clothing. For eye contact, flush immediately with plenty of water for at least 15 minutes. Get medical attention. If swallowed, get medical attention immediately. If inhalation causes physical discomfort, remove to fresh air. If discomfort persists or breathing difficulty occurs, get medical attention. For emergency information, customer service, MSDS or additional safety and chronic hazard information, call 1-800-634-0015. KEEP FROM FREEZING.

FRP-310
TECHNICAL INFORMATION

Base: VAE emulsion
Color: Off-white
Appearance: Smooth
Application Temperature: 40–100° F (5–38° C)
Service Temperature: up to 120° F (up to 49° C)
Adhesion: Excellent to most common building materials
Consistency: Short
Bridging Ability: Good
Shear Strength: Wood to Wood
24 hrs - 210 psi
48 hrs - 250 psi
7 days - 275 psi
Wood to FRP
24 hrs - 100 psi
48 hrs - 125 psi
7 days - 275 psi
Trowelability: Excellent
Durability: Very good
Flexibility: Very good
Water Resistance: Good
Freeze-Thaw Stable: Passes 5 cycles at 0°F
Staining: Do not use on marble or granite
Bleed: Do not use on marble or granite
Odor: Acrylic
Working Time: 45 minutes
Drying Time: Full cure within 1 week
Weight Per Gallon: 11.9 pounds (5.4 kg)
Viscosity: 300,000 CPS
Volatile: 38%
Flammability: Nonflammable
Flash Point: >205°F (96°C)
Coverage: 50 sq. ft. per gallon
Shelf Life: 12 months from date of purchase
Specifications: Exceeds ASTM C-557
VOC: < 7% by wt. (< 70 g/L)