

# **Premium Polyurethane Adhesive**

**CONSTRUCTION ADHESIVE TECHNICAL DATA SHEET** 

**POWERSEAL Premium Polyurethane Construction Adhesive** is a one component, 100%

polyurethane based, VOC compliant adhesive. It can be used for interior or exterior projects and is three times as

strong as conventional solvent based construction adhesives. The advanced formula produces a permanent overnight bond to almost any substrate in all climates. It is also waterproof, paintable and cures even in cold temperatures.

# **FEATURES & TYPICAL USES:**

**POWERSEAL Premium Polyurethane Construction Adhesive** is specially designed for water-resistant assemblies of substrates such as masonry, metal, composition board, gypsum board, most foam insulations including EPS (expanded polystyrene foam), XPS (extruded polystyrene foam) and polysio (Urethane), wood, hardwood flooring, concrete, stone, marble, slate, drywall and mirrors. Also popular on: trailers, trucks, truck bodies, rail cars, containers, buses, marine, RV, horse trailers, manufactured housing, emergency vehicles.

## **SURFACE PREPARATION & APPLICATON:**

APPLICATION DIRECTIONS: Wear gloves during application. Apply to clean surfaces, free of dirt, moisture, and any foreign materials that may affect adhesion. POWERSEAL must be applied to the bare substrate surface. Cut nozzle to desired opening size, (1/4" or 6.3 mm). Small Cartridge: Cut tip off of the cartridge. Large Cartridge: Pierce inner seal. Apply adhesive to one surface of the material to be bonded. Press the surfaces firmly together. Use mechanical support to hold materials in place until adhesive is fully cured.

CLEAN UP: clean tools and excess uncured adhesive immediately with mineral spirits or acetone. Limitations: POWERSEAL Construction Adhesive is not designed for continuous submersion. Not recommended for plastic tub surrounds, water submersion, polyethylene and some polyethylene films that cover certain XPS or EPS foam insulation boards or panels and polypropylene surfaces. Test adhesive on an out-of-the-way area to make sure it will not mark or attack the surface. Do not apply to polystyrene foam if temperature is 32°C (90°F) or greater

# **CAUTION:**

DANGER: Do not use near heat, sparks or flame. Use only with positive cross ventilation. Avoid breathing vapours. Do not swallow. Do not allow eye contact or prolonged skin contact. Uncured product can cause eye or skin irritation. First Aid: If dizziness or other adverse effects are experienced, move to fresh air; contact physician if discomfort persists. If swallowed, DO NOT induce vomiting, contact a physician immediately. If eye contact occurs, flush with water for 15 minutes; contact physician immediately. Wash skin contact areas with soap and water; contact physician if irritation persists. Prolonged or repeated overexposure to solvents in uncured product can cause central nervous system, peripheral nervous system, eye, skin or respiratory system effects. For additional information, refer to Material Safety Data Sheet. KEEP OUT OF THE REACH OF CHILDREN.

## **SHELF-LIFE & STORAGE:**

Shelf-life is 12 months when stored in a clean, dry area. Store at 24°C (75°F) at 50% relative humidity. Keep container tightly sealed when not in use. In cool or cold weather, store containers at room temperature for at least 24 hours before using.







# **VOC Compliant LEED Compliant**

## **FEATURES:**

- Excellent adhesion strength.
- VOC compliant.
- Contributes to LEED credit.
- Nonfreezing.
- AFG-01 approved.
- Low odour.
- · Versatile.
- Adheres to dry, wet & frozen lumber.
- Waterproof & quick setup.

# **AVAILABLE SIZES & COLOUR:**

• 296 mL (10 fl.oz.) cartridge

• Part No.: 123153

• 828 mL (28 fl.oz.) cartridge

• Part No.: 123152

• 12 cartridges per case

• 144 cases per skid (296 mL)

• 54 cases per skid (828 mL)

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## **TYPICAL PROPERTIES:**

These values are not intended for use in preparing specifications. Spec Writers; please contact NUCO Inc. before writing specifications if any further information is required.

Description	Specification	
Viscosity, cps:	Up to 1,000,000	
Solids:	90	
Working or open time, hrs:	Up to 1	
Weight, lbs/gal (kg/L):	10.8 (1.30)	
Flash point, °C (°F):	250 (121)	
Freeze/thaw stability:	Does not freeze	
Shrinkage:	None	
Service temperature, °C (°F):	Up to 121 (250)	
Slab temperature, °C (°F):	10 to 38 (50 to 100)	
Curing, 75°F (24°C) @ 50% relative humidity: note: cure time varies with temperature, humidity, and porosity of the materials joined.	1-2 hrs, firm set 16 hrs, handleable 48 hours, full cure	
Application temperature, °C (°F):	Apply above 4°C (40°F)	
VOC Content:	45 g/L or 0.38 lbs/gal, 4% by weight.  less water and exempt solvents	

## SPECIFICATIONS:

POWERSEAL: 123152, 123153

- Meets and exceeds all requirements of the American Plywood Association Specification AFG-01, Adhesive for Gluing Plywood to Wood Framing.
- FHA Bulletin UM-60.
- ASTM D3498.
- ASTM C-557.

# **ADHESION DATA:**

Lap Shear: Property	Results PSI (MPA)	Comments
Composite materials (Kemlite) to plywood	341 (2.35)	Plywood failure
Anodized aluminum to plywood	240 (1.65)	32 minutes tack time
Adhesive Strength Chart	24 Hours PSI (MPA)	7 Days PSI (MPA)
Plywood to Douglas Fir	541 (3.73)	858 (5.91)
Plywood to treated lumber	861 (5.93)	1,000 (6.89)
Anodized aluminum to Douglas Fir	313 (2.16)	313 (2.16)
Foam to Foam*	37 (0.25)	37 (0.25)
Oriented strandboard to	354 (2.44)	544 (3.75)
Oriented strandboard (wet)		
Wet Douglas Fir to anodized aluminum	217 (1.50)	313 (2.16)
Wet Douglas Fir to	360 (2.48)	828 (5.70)
frozen Douglas Fir		
Plywood to F.R.P.	100 (0.69)	222 (1.53)

## WARRANTY INFORMATION:

Toolway Ind., warrants only that its product wll meet its specifications.

Toolway Ind. shall in no event be liable for incidental or consequential damage.

Toolway Ind. liability, expressed or implied is limited to the stated selling price of any goods found to be defective.

Note: Avg. data is from 10 specimens. We lumber is from overnight soak. \*Foam tears apart at 37 psi (0.125MPa). Test results are typical values obtained under laboratory conditions. Reasonable variations can be expected.

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