



# PUR 80 Construction

High Strength, One-part Polyurethane Adhesive

## Technical Data Sheet

### DESCRIPTION

**BONDAFLEX PUR 80** is a 100% solids, high strength, high performance, non-sag, and multi-purpose polyurethane adhesive. **BONDAFLEX PUR 80** contains no chlorinated solvents or water. It can be used for interior or exterior projects and is as much as five times as strong as conventional construction adhesives. **BONDAFLEX PUR 80** provides superior adhesion to most common construction materials. **BONDAFLEX PUR 80** exceeds the requirements of AFG-01 and ASTM D-3498-03 for field bonding plywood to lumber framing for floor systems and California Air Resources Board 2003 requirements for Volatile Organic Compound content.

### WHERE TO USE

#### Construction Application

- Compatible with extruded and expanded polystyrene insulation board
- Bonding plywood to lumber framing
- Parapets/flashing
- Fascia Installation
- Insulation board

#### Industrial Application

- Lap seams
- Sealing subfloor to metal
- Sealing rivets/fastener heads

#### Structure

- Homes
- Buildings
- Schools
- Stadiums
- Prisons

#### Location

- Interior and exterior
- Above grade

#### Substrate

- Metal, brick, ceramic tile, marble, fiberglass, masonry, foam insulation, treated and untreated lumber, most rigid building materials

### FEATURES

- Low odor, VOC free
- Strong and versatile
- Moisture Resistance
- 100% solids
- High strength
- Fast curing
- Long open time
- Great adhesion in all weather
- Broad service temperature range

### BENEFITS

- Replaces solvent-based adhesives; safe to use indoors or out, no odor complaints
- Permanently bonds to most common construction materials
- Maintains adhesive strength in moist and wet environments
- Solvent free, provides excellent coverage, non-shrink, environmentally friendly
- Stronger than many substrates it is designed to join together, up to 5 times the strength of conventional adhesives
- Provides permanent overnight bond
- Offers flexibility in repositioning; user friendly
- Can be applied to frozen lumber
- Suitable for use in hot and cold environments

### TYPICAL PROPERTIES

Cured 7 days @ 77°F (°C) and 50% RH

Color: Light Brown

PROPERTY	VALUE	TEST METHOD
Hardness, Shore A	85 ± 5	ASTM C-661-98
Tensile Strength, psi (MPa)	1500 (10.32)	ASTM D-412-87
Lap Shear Strength, psi (MPa)	250 (1.72)	ASTM D-1002
Staining	None	ASTM C-510
Skin-Over Time (min)	30	MNA CTM
Tack-Free Time (min)	60	ASTM C-679-87
Extrusion Rate, g/min. 1/8" orifice @ 90 psi	550	ASTM C-1183 modified
Sag at room temperature	None	ASTM D-2202
Sag @ 120°F (49°C)	<0.05 in.	ASTM C-639
Service Temperature	-10°F to 200°F	MNA CTM
Volatile Organic Content (vol %)	0%	ASTM D2369

*Test results are averages obtained under laboratory conditions. Reasonable variations can be expected.*

## ASTM D 3498-03 RESULTS

TEST	Shear (psi) Pass	Min.
Wet Lumber		
w/Douglas Fir	415	150
w/Southern Pine	440	150
Frozen Lumber		
w/Douglas Fir	434	100
w/Southern Pine	448	100
Dry Lumber		
w/Douglas	519	150
Gap filling		
w/Douglas Fir	371	100
Moisture Resistance		
w/Douglas Fir	438	150
Moisture Resistance	100%	100%
Oxidation Resistance	N/A	Pass

## PACKAGING

- 10.1 fl. oz. (300 ml) disposable cartridges
- 29 fl. oz. (857 ml) disposable cartridges
- 4.5 gallon pail
- 52 gal (197 L) in 55 gal drum

Special packaging available upon request – ask your local Representative for more information.

## STORAGE/SHELF LIFE

When stored in the original, unopened containers at or below 75°F (24°C), shelf life is one year. A product skin may form in pails and drums, remove prior to use. Non-freezing.

## SURFACE PREPARATION

The substrate must be clean, dry, frost free, sound and free of any oils, greases or incompatible sealers, paints or coatings that may interfere with adhesion.

**POROUS SUBSTRATES** – clean by mechanical methods to expose a sound surface free of contamination and laitance.

**NON-POROUS SUBSTRATES** – for cleaning non-porous substrates, use two rag wipe method using xylene or an approved commercial solvent. Allow solvent to evaporate prior to sealant application.

## PRIMING

**BONDAFLEX PUR 80** is designed to obtain adhesion without the use of a primer.

## APPLICATION

### Adhesive Joint

1. Apply by caulking gun, dispensing equipment or trowel. Recommended application temperature range is 20°F to 100°F.
2. Apply sufficient quantity of adhesive to one or both substrates to provide bond.
3. Surfaces may be moved up to 30 minutes after application without loss of adhesive strength.
4. If needed, use fastener to hold substrates until adhesive has fully cured.
5. Cure times vary with temperature, humidity and porosity of joined substrates.
6. For optimum performance in cold or hot weather application, condition material to 65-75°F (18.3-24°C) prior to use.

## CLEAN UP

Remove excess adhesive from substrate while uncured using a commercial solvent, such as xylene. Cured adhesive may be removed by mechanical means.

## LIMITATIONS

- Do not allow adhesive to come in contact with neutral curing silicones during cure.
- Immersed bond should be cured (one week) before exposure.

- Adhesive may be applied below freezing temperatures. Contact Technical Service for more information.
- Minimum thickness of adhesive joint must not be less than 0.010 inches.
- Maximum application temperature 100°F (38°C).
- Lower temperatures and humidity will extend tack free and cure rates.

## FIRST AID

In case of eye contact, flush thoroughly with water for at least 15 minutes. SEEK IMMEDIATE MEDICAL ATTENTION. In case of skin contact, wash affected areas with soap and water. If irritation persists, SEEK MEDICAL ATTENTION. Remove and wash contaminated clothing. If inhalation causes physical discomfort, remove to fresh air. If discomfort persists or any breathing difficulty occurs or if swallowed, SEEK IMMEDIATE MEDICAL ATTENTION. Refer to Material Safety Data Sheet (MSDS) for further information.

## PRECAUTIONS

KEEP OUT OF THE REACH OF CHILDREN. Use only with adequate ventilation. Keep container closed. Prevent contact with skin, eyes and clothing. Wash thoroughly after handling. DO NOT take internally. Use impervious gloves, eye protection and if the TLV is exceeded or used in a poorly ventilated area, use NIOSH/MSHA approved respiratory protection in accordance with applicable federal, state and local regulations.

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