



# STP 35

High Early Green Strength  
One-Part, Silyl-Terminated  
Polyether Adhesive/Sealant

## Technical Data Sheet

### DESCRIPTION

**BONDAFLEX STP 35** is a one-component, high early green strength, high performance, non-sag, multi-purpose elastomeric, silyl-terminated polyether adhesive and sealant. Meets the requirements of ASTM C-920, Type S, Grade NS, Class 12.5, Use NT, T, M, G, A, O; TT-S-00230C, Type II, Class A; CAN/CGSB-19.13-M87, AAMA 802.3 Type II, AAMA 803.3, AAMA 805.2, AAMA 808.3 and California Air Resources Board 2003 requirements for Volatile Organic Compound content.

### WHERE TO USE

#### Industrial Application

- Lap seams
- Subfloor to metal
- Sealing rivets/fastener heads
- Bonding door gaskets/body to cab joints
- Collision repair

#### Construction Application

- Metal buildings
- Air ducts/vacuum systems
- Roof tiles
- Standing seam roof systems

#### OEM

- Auto/truck/trailer/bus/train
- RV
- HVAC

#### Structures

- Buildings
- Prison security sealant
- Tanks/silos

#### Locations

- Horizontal and vertical
- Interior and exterior
- Above and below grade

#### Substrates

- Aluminum, wood, steel, extruded PVC, FRP, SMC, RIM, galvanized, many plastics and composites, painted metals, glass, concrete, masonry, brick and natural stones

### FEATURES

- Silyl-Terminated Polyether
- Extremely fast tack free time
- Excellent adhesion
- High abrasion and tear strength
- One-component
- Paintable and sandable
- Provides shock resistance
- Non-staining, non-yellowing
- Tack free surface
- Superior gunning and tooling
- Primerless for most substrates
- Resistant to road salts

### BENEFITS

- Combines best qualities of urethane and silicone sealants
- High early green strength/same day painting
- Bonds to most substrates without priming
- Wide range of applications
- Ready to use, labor cost reduction
- Easier to match contour of parts
- Vibration damping
- Improved aesthetics
- Low dirt pick-up
- Speed and ease of application
- Save application steps
- Ideal for vehicular applications

### TYPICAL PROPERTIES

Cured 7 days @ 75°F (24°C) and 50% RH

PROPERTY	VALUE	TEST METHOD
Movement Capability, %	±12.5	ASTM C-719
100% Modulus, psi (MPa)	210 (1.45)	ASTM D-412
Hardness, Shore A	45±5	ASTM C-661
Tensile Strength, psi (MPa)	430 (2.96)	ASTM D-412
Tear Strength, lbf/in (kN/m)	50 (8.75)	ASTM D- 624
Lap Shear Strength, psi (MPa)	350 (2.41)	ASTM D-1002
Elongation at Break, %	450	ASTM D-412
Peel Strength, pli	30	ASTM C-794
Bond Durability on glass, aluminum and concrete	±12.5%	ASTM C-719
Accelerated Weathering	passes	ASTM C-793
Staining	passes	ASTM C-510

### Uncured

Tack-Free Time	2 hrs.	ASTM C-679
Cure Rate	3/16 inch/24 hrs.	MNA Method
Extrusion Rate g/min 1/8" orifice @ 90 psi	320	ASTM C-1183 modified
Slump of Sealants	nil	ASTM D-2202
Rheological, Vertical @ 120°F (49°C)	non-sag	ASTM C-639
Volatile Organic Content	1.43% by wt 23g/L 0.19 lbs/gal	
Service Temperature	-30° to 200° F -34.4° to 93.3°C	

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

## PACKAGING

- 10.1 fl. oz (300 ml) disposable cartridges
- 600 ml sausage packs
- 4.5 gal (17 L) in a 5 gal 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.

## COLORS

Black, Gray and White. Custom colors are available upon request – ask your local Representative for more information.

## EXPANSION JOINT DESIGN

1. The number of joints and the joint width should be designed for a maximum of  $\pm 12.5\%$  movement at time of installation
2. The depth of the sealant should be 1/2 the width of the joint. The maximum depth is 1/2 inch (13mm) and the minimum is 1/4 inch (6mm).
3. To control joint depth, use closed cell polyethylene or non-gassing polyolefin backer rod. If joint depth does not allow for backer rod, use polyethylene bond breaker tape to prevent three-sided adhesion.
4. Closed cell backer rod should be 25% larger than joint width; do not compress more than 40%.

## 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 STP 35** is designed to obtain adhesion without the use of a primer; however, certain substrates may require a primer. Test by applying the sealant and/or primer sealant combination to confirm results and proposed application methods. Refer to Technical Data Sheet for primers **BONDAFLEX PUR 1000** or **BONDAFLEX PUR 1500** and contact Technical Service for additional information.

## APPLICATION

### Adhesive Joint

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

### Expansion Joint

1. Ready to use, apply using a professional caulking gun. Do not open product container until preparation work has been completed.
2. Apply sealant using consistent, positive pressure to force sealant into the joint.
3. Tool sealant to create a concave joint shape and maximum adhesion. Dry tooling is recommended. DO NOT use soapy water or other liquids when tooling.
4. For cold or hot weather application, condition material to 65-75°F (18.3-24°C) prior to use.

## CLEAN UP

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

## LIMITATIONS

- Do not allow sealant to come in contact with solvent during cure.
- Not intended for long-term immersion.
- Sealant may be applied below freezing temperatures if substrates are completely dry, frost free and clean. Contact Technical Service for more information.
- Maximum depth of sealant must not exceed 1/2 inch (13mm); minimum depth 1/4 inch (6mm).
- Minimum thickness of adhesive joint must not be less than 0.010 inches.
- Maximum application temperature 120°F (49°C).
- Do not apply to damp or wet substrates.
- Do not apply when vapor-transmission may cause sealant bubbling.
- Lower temperatures and humidity will extend tack free and cure rates.
- Allow treated wood to age 6 months before application.

## 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. All label warnings must be observed until container is commercially cleaned or reconditioned.

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