



The Chemical Company

PRODUCT DATA

7 07 20 00 Thermal Protection

SONNEBORN® PREMIUM ADHESIVE

High-strength, high-solids polyurethane adhesive

Description

Sonneborn® Premium Adhesive is a high-strength, high-solids, low-VOC polyurethane adhesive that is 3 times stronger than conventional adhesives. Its technologically advanced formula produces a permanent overnight bond to almost any substrate. Use it in all climates.

Yield

BEAD SIZE, IN (MM)	LINEAL FT/GAL (M/L)
1/8 (3)	1,569 (126.2)
3/16 (5)	697 (56)
1/4 (6)	392 (31.5)
5/16 (8)	251 (20.2)
3/8 (10)	174 (14)

Packaging

313 ml cartridges
828 ml cartridges

Color

Light brown

Shelf Life

1 year when properly stored.

Storage

Store in unopened containers in a cool, dry area away from direct sunlight. Storing at elevated temperatures will reduce shelf life. Sonneborn® Premium Adhesive remains flexible even when stored at freezing temperatures.

Features

- VOC compliant
- Low odor
- Strong and versatile
- High solids
- Nonshrinking
- High strength
- Fast curing
- Long open time
- Nonfreezing
- Broad service temperature range

Benefits

- Environmentally friendly
- Replaces solvent-based adhesives; safe to use indoors or out; no odor complaints
- Permanently bonds together almost anything
- Provides excellent coverage
- Does not crack or lose bond
- Stronger than many substrates it joins together; up to 3 times the strength of conventional adhesives
- Provides permanent overnight bond
- Offers flexibility in repositioning; user friendly
- Can be applied to frozen, frost-free lumber
- Suitable for use in hot and cold environments

Where to Use

LOCATION

- Interior and exterior
- Above grade

SUBSTRATE

- Treated and untreated lumber
- Foam insulation
- Brick
- Metal
- Concrete
- Masonry
- Most rigid building materials

How to Apply

Surface Preparation

Surfaces must be structurally sound, dry, clean, and free of dirt, moisture, loose particles, oil, grease, asphalt, tar, paint, wax, rust, waterproofing or curing and parting compounds, and membrane materials.

Application

1. Apply by caulking gun or trowel.
2. Wearing gloves during application is highly recommended. Once material has cured it cannot be removed.
3. Because of Sonneborn® Premium Adhesive's high strength, do not apply it as heavily as you would a conventional adhesive. Cut the smallest possible opening in the spout to render the appropriate-sized bead. Be certain to fill all gaps between materials.
4. Materials may be repositioned without loss of adhesive strength up to 1 hour after application.
5. Use mechanical fasteners to hold materials in place until adhesive has fully cured.

Curing Time

Sonneborn® Premium Adhesive forms a tenacious bond overnight. Cure time varies with temperature, humidity, and the porosity of the materials joined.

Clean Up

Clean all tools and equipment immediately after use with a dry cloth; Sonneborn® Reducer 990 or xylene may also be used. Cured material must be mechanically removed.



Technical Data

Composition

Sonneborn® Premium Adhesive is a high-solids polyurethane elastomer that cures by reaction with atmospheric moisture.

Compliances

- Adhesive meets or exceeds all requirements of the American Plywood Association Specification AFG-01, Adhesive for Gluing Plywood to Wood Framing.
- FHA Bulletin UM-60
- ASTM D 3498

Typical Properties

PROPERTY	VALUE
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 , ° F (° C)	250 (121)
Freeze/thaw stability	Does not freeze
Shrinkage	None
Service temperature , ° F (° C)	Up to 250 (121)

Test Data

LAP SHEAR

PROPERTY	RESULTS PSI (MPA)	COMMENTS
Chemlite to plywood	341 (2.35)	Plywood failure
Kynar to plywood	340 (2.34)	Primer 733 on Kynar
Extruded polyurethane to plywood	240 (1.65)	32 minutes tack time

ADHESIVE STRENGTH CHART

SUBSTRATE	SONNEBORN® PREMIUM ADHESIVE PSI (MPA)	
	24 hrs	7 days
Plywood to Douglas fir	541 (3.73)	858 (5.91)
Plywood to treated lumber	861 (5.93)	1,000 (6.89)
Metal to Douglas fir	313 (2.16)	313 (2.16)
Foam to foam*	37 (0.25)	37 (0.25)
Oriented strandboard to Oriented strandboard (wet)	354 (2.44)	544 (3.75)
Wet Douglas fir to metal	217 (1.50)	313 (2.16)
Frozen Douglas fir to frozen Douglas fir	360 (2.48)	828 (5.70)
Plywood to F.R.P.	100 (0.69)	222 (1.53)

Note: Average data is from 10 specimens. Wet lumber is from overnight soak.

*Foam tears apart at 37 psi (0.25 MPa).

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

For Best Performance

- Wear gloves during application of adhesive; once cured, material cannot be removed.
- Not intended for applications with continuous submersion.
- If adhesion to a substrate is questionable, a test application must be conducted.
- Make certain the most current versions of product data sheet and MSDS are being used; call Customer Service (1-800-433-9517) to verify the most current versions.
- Proper application is the responsibility of the user. Field visits by BASF personnel are for the purpose of making technical recommendations only and not for supervising or providing quality control on the jobsite.

Health and Safety

SONNEBORN® PREMIUM ADHESIVE

Warning

Sonneborn® Premium Adhesive contains hydrotreated middle petroleum distillate, methylene bisphenyl diisocyanate and polymethylene polyphenyl isocyanate.

Risks

May cause skin and eye irritation. Repeated or prolonged contact with skin may cause sensitization. Inhalation of vapors may cause irritation and intoxication with headaches, dizziness and nausea. Ingestion may cause irritation. Reports associate repeated or prolonged occupational overexposure to solvents with permanent brain, nervous system, liver and kidney damage. INTENTIONAL MISUSE BY DELIBERATELY INHALING THE CONTENTS MAY BE HARMFUL OR FATAL.

Precautions

KEEP OUT OF THE REACH OF CHILDREN. Keep container closed. Use only with adequate ventilation. Prevent contact with eyes, skin and clothing. Wash thoroughly after handling. Avoid breathing vapors. DO NOT take internally. Use impervious gloves, eye protection and if the TLV is exceeded or product is 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.

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.

Proposition 65

This product contains listed by the State of California as known to cause cancer, birth defects or other reproductive harm.

VOC Content

45 g/L or 0.38 lbs/gal, less water and exempt solvents.

**For medical emergencies only,
call ChemTrec (1-800-424-9300).**

**BASF Construction Chemicals, LLC –
Building Systems**

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Form No. 1017887 9/07
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