



The Chemical Company

PRODUCT DATA

7 07 92 00 **Joint
Sealants**

SONOLASTIC® TX 1

**One-component, texturized, moisture-curing,
gun-grade elastomeric polyurethane sealant**

Description

TX 1 is a one-component, texturized, moisture-curing, gun-grade polyurethane sealant. It requires no mixing and typically requires no priming on common building materials. TX 1 has a textured appearance, which blends well with masonry substrates.

Yield

See page 3 for charts.

Packaging

300 ml cartridges, 30 per carton
20 oz (590 ml) ProPaks,
20 per carton in natural stone and
stone (minimum 180 case order)

Color

Standard colors: white, off-white, aluminum gray, natural stone, stone, buff, ivory, medium bronze, special bronze and black. Refer to the Sonneborn® Color Portfolio.

Shelf Life

1 year when properly stored

Storage

Store in unopened containers in a cool, dry area. Storing at elevated temperatures will reduce the shelf life.

Features

- One component
- Gun grade
- Weather resistant
- Textured appearance
- Accepts joint movement of $\pm 25\%$
- High-quality polyurethane polymer
- Easy to gun and tool
- Eleven standard colors
- Wide temperature application range
- No primer required for most construction materials
- Compatible with nonrigid coatings
- Lower odor than other textured sealants

Benefits

- Requires no mixing; saves on labor
- Does not sag in vertical joints
- Produces long-lasting weather-tight seals
- Complements rough surfaces like masonry and stucco
- Keeps moving joints tight
- Resists age hardening
- Speeds application and makes neater joints
- Matches common substrates
- Suitable for all climates
- Lowers installation costs
- May be painted
- Comfortable for applicators

Where to Use

APPLICATION

- Expansion joints
- Panel walls
- Precast units
- Aluminum and wood window frames
- Vinyl siding
- Fascia
- Parapets
- Roofing
- HVAC

LOCATION

- Horizontal and vertical joints
- Interior and exterior

SUBSTRATE

- Concrete
- Masonry
- Aluminum
- Wood
- Stucco

How to Apply

Joint Preparation

1. The number of joints and the joint width should be designed for a maximum of $\pm 25\%$ movement.
2. The depth of the sealant should be one-half the width of the joint. The maximum depth is 1/2" (13 mm) and the minimum is 1/4" (6 mm). The maximum recommended width is 1-1/2" (38 mm). Refer to Table 1.

Sonneborn®

Technical Data

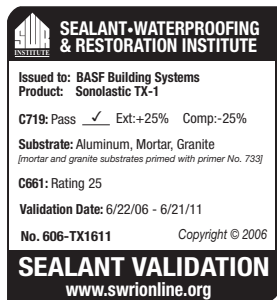
Composition

Sonolastic® TX 1 is a one-component moisture-curing polyurethane containing fibers for a textured appearance.

Compliances

- ASTM C 920, Type S, Grade NS, Class 25, Use NT, M, A, and O*
- Federal Specification TT-S-00230C, Type II, Class A
- USDA compliant for use in meat and poultry areas
- SWR institute validated

* Refer to substrates in **Where to Use**.



Typical Properties

PROPERTY	VALUE
Service temperature range, ° F (° C)	-40 to 180 (-40 to 82)

Test Data

PROPERTY	RESULTS	TEST METHODS
Movement capability, %	±25	ASTM C 719
Tensile strength, psi (MPa)	215 (1.48)	ASTM D 412
Tear strength, pit	50	ASTM D 1004
Ultimate elongation at break, %	735	ASTM D 412
Rheological, (sag in vertical displacement) inches, at 120° F (49° C)	1/16	ASTM C 639
Hardness, Shore A		ASTM C 661
At standard conditions	25 – 30	
After heat aging (max Shore A: 50)	30 – 35	
Weight loss, after heat aging, %	< 10	ASTM C 792
Cracking and chalking, after heat aging	None	ASTM C 792
Tack-free time, hrs (maximum 72 hours)	Passes	ASTM C 679
Stain and color change	No visible change	ASTM C 510
Bond durability,* on glass, aluminum, and concrete, ±25% movement	Passes	ASTM C 719
Adhesion in peel, pli, (min. 5 pli)*	22	ASTM C 794
Artificial weathering, Xenon arc, 3,000 hours	No elastomeric property change	Atlas 6500

*Primed for water immersion dictated by ASTM C 920.

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

TABLE 1

JOINT WIDTH, IN (MM)	SEALANT DEPTH AT MIDPOINT, IN (MM)
1/4 – 1/2 (6 – 13)	1/4 (6)
1/2 – 3/4 (13 – 19)	1/4 – 3/8 (6 – 10)
3/4 – 1 (19 – 25)	3/8 – 1/2 (10 – 13)
1 – 1-1/2 (25 – 38)	1/2 (13)

Joint Width and Sealant Depth

3. In deep joints, the sealant depth must be controlled by Closed-Cell Backer-Rod or Soft Backer-Rod (see Form No. 1026342). Where the joint depth does not permit the use of backer-rod, a bondbreaker (polyethylene strip) must be used to prevent three-sided adhesion.

4. To maintain the recommended sealant depth, install backer-rod by compressing and rolling it into the joint channel without stretching it lengthwise. Closed-Cell Backer-Rod should be approximately 1/8" (3 mm) larger in diameter than the width of the joint to allow for compression. Soft Backer-Rod should be approximately 25% larger in diameter than the joint width. Backer-rod becomes an integral part of the joint. The sealant does not adhere to it, and no separate bondbreaker is required. Do not prime or puncture the backer-rod.

Surface Preparation

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

CONCRETE, STONE, AND OTHER MASONRY

Clean by grinding, sandblasting, or wire brushing to expose a sound surface free of contamination and laitance.

WOOD

New and weathered wood must be clean and sound. Scrape away paint to bare wood. Any coating that cannot be removed must be tested to verify adhesion of the sealant or to determine an appropriate primer.

METALS

Remove scale, rust, and coatings from metal to expose a bright white surface. Remove protective coatings as well as any chemical residue or film. Aluminum window frames are frequently coated with a clear lacquer that must be removed prior to the application of TX 1. Any coating that cannot be

Yield

LINEAR FEET PER GALLON*

JOINT DEPTH (INCHES)	JOINT WIDTH (INCHES)						
	1/4	3/8	1/2	5/8	3/4	7/8	1
1/4	308	205	154	122	—	—	—
3/8	—	—	—	82	68	58	51
1/2	—	—	—	—	51	44	38

*One gallon equals approximately 12 cartridges or 6 ProPaks

METERS PER LITER

JOINT DEPTH (MM)	JOINT WIDTH (MM)						
	6	10	13	16	19	22	25
6	24.8	16.5	12.4	9.8	—	—	—
10	—	—	—	6.6	5.5	4.7	4.1
13	—	—	—	—	4.1	3.5	3.0

removed must be tested to verify adhesion of the sealant or to determine an appropriate primer. Remove any other protective coatings or finishes that could interfere with adhesion. Copper, stainless steel, and galvanized steel must always be primed; Primer 733 or 766 is acceptable. For fluorocarbon coatings, such as Kynar 500, use Primer 733 only. An adhesion test is recommended for any other questionable substrate.

PRIMING

- TX 1 is generally considered a nonpriming sealant, but special circumstances or substrates may require a primer. It is the user's responsibility to check the adhesion of the cured sealant on typical test joints at the project site before and during application. Refer to product data sheet on Primer 733 or 766 (Form No. 1017962) and consult BASF Technical Service for additional information.
- Apply primer full strength with a brush or clean, lint-free cloth. A light, uniform coating is sufficient for most surfaces. Porous surfaces require more primer; however, do not overapply.
- Allow primer to dry before applying TX 1. Depending on temperature and humidity, primer will be tack free in 15 – 120 minutes. Priming and sealing must be done on the same day.

Application

- TX 1 comes ready to use. Apply by professional caulking gun. Do not open product container until preparatory work has been completed.
- Fill joints from the deepest point to the surface by holding a properly sized nozzle against the back of the joint.
- Dry tooling is recommended. DO NOT use soapy water when tooling. Tooling results in the correct bead shape, a neat joint, and maximum adhesion.

Clean Up

- Immediately after use, clean equipment with Reducer 990 or xylene. Use proper precautions when handling solvents.
- Remove cured sealant by cutting with a sharp-edged tool.
- Remove thin films by abrading.

Curing Time

The cure of TX 1 varies with temperature and humidity. The following times assume 75° F (24° C), 50% relative humidity, and a joint 1/2" wide by 1/4" deep (13 mm x 6 mm).

Skins over: overnight or within 24 hours

Full cure: approximately 7 days

For Best Performance

- Do not allow uncured TX 1 to come in contact with alcohol-based materials or solvents.
- Do not apply TX 1 in the vicinity of uncured silicone sealants or uncured Sonolastic® 150 or 150 Tint Base.
- Fresh TX 1 should not come in contact with oil-based caulking, silicone sealants, polysulfides, or fillers impregnated with oil, asphalt, or tar.
- Protect unopened containers from heat and direct sunshine.
- In cool or cold weather, store container at room temperature for at least 24 hours before using.
- TX 1 should not be used for prolonged immersion in water. Call BASF Technical Service for recommendations.
- Do not apply over freshly treated wood; treated wood must have weathered for at least 6 months.
- Substrates such as copper, stainless, and galvanized typically require the use of a primer; Primer 733 or 766 is acceptable. For Kynar coatings use only Primer 733. An adhesion test is recommended for any other questionable substrate.
- UV exposure may cause white TX 1 to discolor. This does not affect sealant performance; where maintaining a true white appearance is critical, use Ultra sealant.

- TX 1 can be applied below freezing temperatures only if substrates are completely dry, free of moisture, and clean.
- Lower temperatures will extend curing times.
- Pursuant to accepted industry standards and practices, using rigid paints and/or coatings over flexible sealants can result in a loss of adhesion of the applied paint and/or coating, due to the potential movement of the sealant. However, should painting and/or coating be desired it is required that the applicator of the paint and/or coating conduct on-site testing to determine compatibility and adhesion.
- 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

SONOLASTIC® TX 1

Warning

TX 1 contains Stoddard solvent, silica and crystalline quartz.

Risks

May cause eye, skin or respiratory irritation. May cause dermatitis and allergic responses. Potential skin and/or respiratory sensitizer. 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. 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.

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 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 material listed by the state of California as known to cause cancer, birth defects or other reproductive harm.

VOC Content

0.30 lbs/gal or 36 g/L, less water and exempt solvents.

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

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