

PRODUCT DATA

7 07 92 00 **Joint
Sealants**

SONOLASTIC[®] POLYSULFIDE SEALANT

High-performance elastomeric nonsag sealant

Description

Sonolastic[®] Polysulfide Sealant is a multi-component, high-performance, low-modulus polysulfide sealant. Its elastomeric properties allow +25% joint movement. It withstands constant water immersion and will not degrade under limited chemical exposure.

Yield

See page 3 for charts.

POLYSULFIDE PRIMER

450 linear ft/pt (137 m/0.47 L) in a joint 1/2" (13 mm) deep

PackagingSONOLASTIC[®] POLYSULFIDE SEALANT

1-1/2 gallon (5.68 L) units
(Part A and Part B)

POLYSULFIDE PRIMER

1 pint (0.47 L) cans, 12 per carton (pint will yield 450 linear feet [137 m] in a joint 1/2" or [13 mm] deep)

Color

White, off-white, limestone, tan, stone, aluminum gray. Colors are added to sealant during mixing of Part B and Part A. (Polysulfide pigment must be used with this product.)

Shelf LifeSONOLASTIC[®] POLYSULFIDE SEALANT

6 months when properly stored

POLYSULFIDE PRIMER

1 year when properly stored

Storage

Store all materials in unopened containers in a dry area. Protect from heat and direct sunshine.

Features

- Nonstaining; colorfast
- Easy to gun and tool
- Capable of $\pm 25\%$ joint movement
- Waterproof

Benefits

- Maintains appearance long term
- Applies quickly
- Expands and contracts with building movement
- Withstands constant water immersion

Where to Use

APPLICATION

- Substrates immersed in water
- Areas with limited chemical exposure
- Exterior precast panels
- Curtain and window wall construction joints
- Foundations
- Tanks

LOCATION

- Exterior or interior
- Above and below grade

SUBSTRATE

- Concrete
- Stone
- Masonry
- Metal
- Glass

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 1/2 the width of the joint. The maximum depth is 1/2" (13 mm) and the minimum is 1/4" (6 mm). Maximum recommended joint width is 2" (51 mm).
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, use a bondbreaker (polyethylene strip) 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 about 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. The sealant does not adhere to it, and no separate bondbreaker is required. Do not prime or puncture the backer-rod.

Technical Data

Composition

Sonolastic® Polysulfide Sealant is a two-part polysulfide-modified polyurethane sealant, which cures by reaction of its component parts.

Compliances

- ASTM C 920, Type M, Grade NS, Class 25, use T, G, M, A, O
- Federal Specification TT-S- 00227E, Type II, Class A
- Canadian Standards Board CAN/CGSB-19.24-M90
- USDA compliant for use in meat and poultry areas

Typical Properties

PROPERTY	VALUE
Service temperature range, ° F (° C)	-40 – 220 (-40 – 104)
Shrinkage	None

Test Data

PROPERTY	RESULTS	TEST METHODS
Tensile strength, psi (MPa)	170 (1.2)	ASTM D 412
Elongation at ultimate break, %	500	ASTM D 412
Rheological (sag in vertical displacement), at 120° F (49° C)	No sag	ASTM C 639
Hardness, at standard conditions, (min Shore A: 15; max Shore A: 50)	40	ASTM C 661
Weight loss, after heat aging, %	5	ASTM C 792
Cracking and chalking, after heat aging	None	ASTM C 792
Staining	None	ASTM C 510
Bond durability (primed), % movement, on glass, aluminum, and concrete	Passes ±25	ASTM C 719
Adhesion in peel (primed), pli on aluminum, concrete, and steel	20 – 25	ASTM C 794

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

APPLICATION PROPERTIES FOR POLYSULFIDE PRIMER

PROPERTY	VALUE
Color	
Part A	Clear to light yellow
Part B	Amber
Mixing ratio, Part A to Part B, by weight or volume	1 to 1
Recommended film thickness, mils (mm) minimum	1.0 – 1.5 (0.025 – 0.038)
Application life, hrs	
40° F (4° C)	16
75° F (24° C)	8
100° F (38° C)	3
120° F (49° C)	1
Dry time before application of sealant, at 75° F (24° C) and 50% rh	
Minimum, hrs	1.5
Maximum, hrs	24
Flash Point (TCC), ° F (° C)	
Part A	51 (11)
Part B	44 (7)
Density, lbs/gal	6.7

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

Yield for Sonolastic® Polysulfide Sealant

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

METERS PER LITER

JOINT DEPTH (MM)	JOINT WIDTH (MM)						
	6	10	13	16	19	22	25
6	25	17	12	10	–	–	–
10	–	–	8	7	6	5	4
13	–	–	–	–	4	4	3

Surface Preparation

1. Surfaces must be structurally sound, fully cured 28 days, dry, clean, free of dirt, moisture, loose particles, oil, grease, asphalt, tar, paint, wax, rust, waterproofing and curing or parting compounds and membrane materials.

2. Field adhesion testing is recommended before application begins.

CONCRETE, STONE, AND OTHER MASONRY

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

WOOD

1. New and weathered wood must be clean and sound.
2. Scrape away loose paint to bare wood. Any paint that cannot be removed must be tested to verify adhesion of sealant or determine an appropriate primer.
3. For wood substrates with coatings or baked-on enamel or plastic finishes, conduct an adhesion test.

METAL

1. Remove scale, rust and coatings from metal to expose a bright white surface.
2. 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 before the application of Sonolastic® Polysulfide Sealant.

3. Any coating that cannot be removed must be tested to verify adhesion of sealant or determine an appropriate primer.

4. Remove any other protective coatings or finishes that could interfere with adhesion.

GLASS

Remove all oil or grease with Reducer 990 or other solvent, then wipe clean and dry until no solvent film or fingerprints remain.

Priming

1. Priming is required for masonry, wood, fiberglass, and metal. For other surfaces, an adhesion test is required.
2. Pour entire contents of Part B into Part A and thoroughly mix. Slow mixing by hand is recommended. Also stir the material occasionally during use.
3. After thorough mixing, allow Primer to stand for 30 minutes before use. Apply by brush to a uniform thickness free of runs.
4. Polysulfide Primer must be applied within times shown under Application Life.
5. Install sealant over primer after primer has cured a minimum 1-1/2 hours at 75° F (24° C) but within 24 hours.
6. Polysulfide Primer may slightly darken light-colored masonry and concrete. Where appearance is important, prevent excess material from being applied outside of joints.

Mixing

1. Sonolastic® Polysulfide Sealant is a three-component system and must be thoroughly mixed before use. Do not open containers until ready for use. The oversize Part A container allows for the addition and mixing of Part B and the color pigment.
2. Transfer the Part B to the Part A container using a spatula or knife. It is imperative that the entire contents of Part B be mixed thoroughly with the entire contents of Part A.
3. With a slow-speed drill and a sealant mixing paddle, mix Part B and Part A for 4 – 6 minutes. The paddle blade must be kept below the sealant's surface to avoid whipping air into the sealant.
4. Polysulfide pigment must be used. Transfer the entire contents of the pigment can into the mixed Part A and Part B. Scrape out entire contents of color package with a spatula or knife to ensure consistent color. Continue mixing with a slow-speed drill and slotted paddle until color is uniform. During the process, the sides and bottom of the base container and the paddle itself must be scraped several times.
5. The pot life of mixed Sonolastic® Polysulfide Sealant is about 4 – 6 hours at 65° F (18° C) and 1 hour at 95° F (35° C).

Application

1. Apply Sonolastic® Polysulfide Sealant by professional bulk caulking gun loaded at the job site. Fill joints from bottom to top by holding a properly sized nozzle against the bottom of the joint.
2. For best results, apply the sealant when the joint is at the midpoint of its designed expansion-contraction range, providing for optimal sealant efficiency with subsequent joint movement.
3. Best practice dictates that all caulking and sealing be performed when temperatures are above 40° F (4° C) to avoid application to damp surfaces. Moisture on substrates will adversely affect adhesion.
4. Dry tooling is recommended. DO NOT use soapy water when tooling. Tooling results in the correct beadshape, a neat joint and maximum adhesion.

Clean Up

After using Sonolastic® Polysulfide Sealant or primer, clean tools and equipment with Reducer 990, xylene, or similar solvent.

Curing

Initial cure: 24 – 48 hours

Complete cure: 10 – 14 days

Cure times depend on temperature and humidity.

For Best Performance

- Polysulfide Pigment must be used with Sonolastic® Polysulfide Sealant.
- In cool or cold weather, store containers at approximately 75° F (24° C) for at least 16 hours before using.
- Sonolastic® Polysulfide Sealant should not be applied in joints with bituminous contamination.
- Do not apply over oil or solvent-containing sealants or impregnated joint fillers.
- Minimum recommended joint width is 1/4" (6 mm), maximum is 2" (51 mm).
- Conduct a test application before applying to any questionable or untested construction materials or coatings.
- Allow Sonolastic® Polysulfide Sealant to cure 10 – 14 days before immersion in water.
- Do not use in water treated with chlorine or bromine.
- 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 version.

- 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 POLYSULFIDE SEALANT PART A

Caution

Sonolastic Polysulfide Sealant Part A contains cyclohexane.

Risks

Combustible liquid and vapor. May be absorbed through skin. Repeated or prolonged exposure increases the risk of absorption. May cause eye, skin or respiratory irritation. 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 FROM HEAT, SPARKS AND FLAME. Keep container closed when not in use. Use only with adequate ventilation. Avoid contact with skin, eyes and clothing. Avoid breathing vapors. Wash thoroughly after handling. DO NOT take internally. Use impervious gloves, eye protection and if the TLV is exceeded or if 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. Empty container may contain explosive vapors or hazardous residues.

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

VOC Content

0.84 lbs/gal or 100 g/L, less water and exempt solvents, when components are mixed

SONOLASTIC POLYSULFIDE SEALANT PART B

Caution

Sonolastic Polysulfide Sealant Part B contains cyclohexane and epoxy resin.

Risks

Combustible liquid and vapor. May be absorbed through skin. Repeated or prolonged exposure increases the risk of absorption. May cause eye, skin or respiratory irritation. 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 FROM HEAT, SPARKS AND FLAME. Keep container closed when not in use. Use only with adequate ventilation. Avoid contact with skin, eyes and clothing. Avoid breathing vapors. Wash thoroughly after handling. DO NOT take internally. Use impervious gloves, eye protection and if the TLV is exceeded or if 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. Empty container may contain explosive vapors or hazardous residues.

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. If inhalation causes physical discomfort, remove to fresh air. If discomfort persists or any breathing difficulty occurs or if swallowed, SEEK IMMEDIATE MEDICAL ATTENTION.

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SONOLASTIC POLYSULFIDE PIGMENT

Caution

Sonolastic Polysulfide pigment contains one or more of the following: calcium carbonate, triethylenediamine, titanium dioxide, or butyl benzyl phthalate.

Risks

May cause skin, eye and respiratory irritation. Ingestion may cause irritation. INTENTIONAL MISUSE BY DELIBERATELY INHALING THE CONTENTS MAY BE HARMFUL OR FATAL.

Precautions

KEEP OUT OF THE REACH OF CHILDREN. Avoid contact with eyes, skin and clothing. Use only with adequate ventilation. 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. Wash thoroughly after handling. Keep container closed when not in use.

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. If inhalation causes physical discomfort, remove to fresh air. If discomfort persists or any breathing difficulty occurs, SEEK IMMEDIATE MEDICAL ATTENTION. If swallowed, SEEK IMMEDIATE MEDICAL ATTENTION.

Refer to Material Safety Data Sheet (MSDS) for further information.

Proposition 65

This product does not knowingly contain material listed by the state of California as known to cause cancer, birth defects, or other reproductive harm.

VOC Content

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

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