

PRODUCT DATA

7 07 92 00 **Joint Sealants**

# TF-100

**Fast-setting two-component polyurea control-joint filler**

### Description

TF-100 is a two-component self-leveling 100% solids polyurea control joint filler designed to protect joints in industrial concrete floors subject to hard wheels and heavy loads. TF-100 provides excellent resistance to spalling, abrasion, chemical attack, and corrosion. It is also ideal for filling random cracks.

### Yield

See page 3 for chart.

### Packaging

300 by 300 ml biaxial cartridges

10 gallon (37.9 L) kits, containing:  
 5 gallons (18.9 L) of Part A and  
 5 gallons (18.9 L) of Part B

### Color

Gray and black

### Shelf Life

Cartridges:  
 1 year when properly stored.

10 gallon pails:  
 2 years when properly stored.

### Storage

Store in unopened containers in a clean, dry area at 60 to 90° F (16 to 32° C) and 50% relative humidity.

### Features

- Rapid gel time
- No VOCs
- Excellent chemical resistance
- Outstanding abrasion resistance
- USDA compliant

### Benefits

- Reduces facility down time
- Very low odor
- Withstands harsh chemicals
- Stands up to heavy traffic
- Can be used in meat and poultry plants

### Where to Use

#### APPLICATION

- Control joints in concrete
- Retail and warehouse floors
- Random crack filling

#### LOCATION

- Horizontal
- Interior or exterior

#### SUBSTRATE

- Concrete

### How to Apply

#### Installation

##### JOINT DESIGN

1. Install TF-100 at full joint depth to allow for proper load transfer. Do not use sand or backing materials simply to reduce volume. Clean, dry silica sand may be used to seal cracks in the base of the joint if approved by the specifier; however, Sonneborn® recommends that the minimum application be 2/3 the depth of the joint or 1", whichever is greater.
2. Do not install over Backer-rod in sawcut control joints. Compressible rod may be used at depths greater than 1-1/2" in formed construction joints.

### Surface Preparation

1. Concrete must be fully cured (28 days). Following ACI 302 recommendation, apply joint fillers as late as possible after construction (ideally 90 – 120 days to minimize additional slab shrinkage).
2. Joint surfaces must be sound, dry, clean, free of dirt, moisture, loose particles, oil, grease, asphalt, tar, paint, wax, rust, waterproofing and curing or parting compounds, membranes, and other foreign matter.
3. Clean concrete where necessary by grinding, sandblasting, or wire brushing. Expose a sound surface free of contamination and laitance.

#### OLD CONCRETE PREVIOUSLY CAULKED

1. Remove all old joint sealing material by mechanical means.
2. If joint sides have absorbed oils, cut away sufficient concrete to ensure a clean, fresh surface.

## Technical Data

### Composition

TF-100 is a two-component 100% solids polyurea.

### Compliances

- USDA compliant for use in areas that handle meat and poultry

### Typical Properties

PROPERTY	VALUE
<b>Application temperature, ° F (° C)</b>	
Substrate*	40 to 110 (4 to 43)
Material	60 to 100 (16 to 38)
<b>Service temperature, ° F (° C)</b>	-40 to 350 (-40 to 177)
<b>Gel time, sec</b>	60 – 70
<b>Trim time, hrs</b>	1 – 3
<b>Tensile strength, psi (MPa)</b> (ASTM D 412)	1,975 (13.6)
<b>Elongation, %</b>	400
<b>Hardness, Shore A</b>	85 – 90
<b>Return to service, hrs</b> (dependent on temp)	1 – 3

\*At substrate temperatures below 40° F (4° C), the substrate must be free of frost or condensation before application of TF-100.

Test results are averages obtained under laboratory conditions. Expect reasonable variations.

### Priming

1. For most applications, priming is not required.
2. Where joints will be subject to continuous or protracted periods of water immersion, they must have their joint faces primed with Primer 733. Conduct a test application to verify adhesion.
3. When joint surfaces have been cleaned as described above, apply Primer 733 in a thin, uniform film (typically 1– 2 mils). Avoid buildup of excess film thickness and application of primer beyond joint faces.
4. Allow approximately 15 – 30 minutes drying time; primer should be tack free before application of sealant.

### Mixing

#### CARTRIDGES

Use a 30 element 10 mm diameter static mixer with a pneumatic or manual side-by-side gun.

#### BULK UNITS

Use an AST or GMP Series plural-component metering system, or equivalent, at a 1 to 1 ratio. Thoroughly premix Part B with a drill and paddle to redistribute any settled material. Contact your Sonneborn® representative for additional information on pumping equipment.

### Application

1. TF-100 can be pumped from pails using the equipment described above or dispensed from cartridges with a side-by-side manual or pneumatic gun. A 30 element nozzle with a 10 mm diameter is required to achieve a sufficient mix. The prepackaged restrictor plate is required for manual dispensing. When using cartridges, dispense enough material to ensure proper mixing before placing nozzle in the joint.
2. Use a 1-to-1 manual or pneumatic dispenser (maximum of 80 psi).
3. Remove the retaining nut and caps from the cartridge.
4. Keep the cartridge upright during assembly.

## Yield

LINEAR FEET PER GALLON (METERS PER LITER)\*

JOINT WIDTH IN (MM)	JOINT DEPTH 1.5" (38 MM)	JOINT DEPTH 2" (51 MM)	JOINT DEPTH 2.5" (63 MM)
3/16 (4.8)	68 (5.5)	51 (4.2)	41 (3.20)
1/4 (6.4)	51 (4.2)	38 (3.2)	30 (2.4)
3/8 (9.5)	34 (2.6)	25 (2.1)	20 (1.6)

\*One gallon yields 321 in<sup>3</sup> (0.001 m<sup>3</sup>/L).

5. Check alignment of plungers inside cartridge; level if necessary.
6. Place restrictor disc over cartridge openings.
7. Place mixing nozzle over restrictor disc and hand tighten nut.
8. Point cartridge upward and load into applicator gun.
9. While pointing cartridge upward, trigger handle to remove any air trapped in cartridges.
10. Point cartridge over waste container and dispense initial material (3 – 4 squeezes).
11. Fill the joint from the bottom up. Completely fill joint in 1 pass, overfilling it slightly. In cases where slab elevations are different, fill to the lower slab height.
12. Trim excess fill after 1 – 3 hours (depending on temperature) with a stiff, sharp razor blade (0.032" thick) attached to a heavy floor scraper (Crane 375).

NOTE: Application of any TF-100 cartridge must be performed continuously. Stopping before the cartridge is completely dispensed will result in the material setting up in the mixing nozzle.

### Drying Time

Trim time: 1 – 3 hours

### Clean Up

Wash tools with Reducer 990 or xylene immediately after use. Observe all precautions when handling these solvents. Cured material must be removed mechanically.

## For Best Performance

- Not recommended for joints greater than 1/2" (12.5 mm) wide.
- Precondition materials to 70° F (21° C) when applying at temperatures below 60° F (16° C).
- Material may discolor in direct sunlight or high-intensity UV light.
- 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

TF-100 PART A

### Warning

Contains diisocyanates, polyisocyanate based on MDI and diphenylmethane diisocyanate.

### Risks

May cause skin, eye and respiratory irritation. May cause dermatitis and allergic responses. Potential skin and/or respiratory sensitizer. Ingestion may cause irritation. 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. Avoid contact with skin, eyes and clothing. Keep container closed when not in use. 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. Empty container may contain hazardous residues. 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. 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 does not knowingly contain material listed by the state of California as known to cause cancer, birth defects, or other reproductive harm.

## VOC Content

0 lbs/gal or 0 g/L, less water and exempt solvents.

## TF-100 PART B

**Danger—Corrosive**

TF-100 Part B contains N,N'-di(2-butyl)-4,4'-methylenedianiline, diethyltoluenediamine and poly(oxypropylene)diamine.

**Risks**

Contact with skin or eyes may cause burns. Ingestion may cause irritation and burns of mouth, throat and stomach. Inhalation of vapors may cause irritation and intoxication with headaches, dizziness and nausea. INTENTIONAL MISUSE BY DELIBERATELY INHALING THE CONTENTS MAY BE HARMFUL OR FATAL.

**Precautions**

KEEP OUT OF THE REACH OF CHILDREN. DO NOT get in eyes, on skin or clothing. Wash thoroughly after handling. Keep container closed. DO NOT take internally. Use only with adequate ventilation. DO NOT breathe vapors. 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. Empty containers may contain hazardous residue. All label warnings must be observed until container is commercially cleaned or reconditioned.

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**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 lbs/gal or 0 g/L, less water and exempt solvents, when components are mixed and applied per manufacturer's instructions.

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

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