



PRODUCT TECHNICAL DATA SHEET

JOINT FILLER

Advanced Coating Systems

HIGH PERFORMANCE TWO-COMPONENT POLYUREA

GENERAL PRODUCT DESCRIPTION

Joint Filler is an advanced, high strength, fast curing, two-component, polyurea elastomer, concrete joint / crack filler. Formulated to quickly fill control joints in concrete with low to medium thermal cylling. Joint Filler's low viscosity and fast gel time (tack free in less than 5 minutes) allows shaving in less than 30 minutes and return to service in less than 1 hour. Joint Filler is the product of choice when downtime is costly and quick return to service is critical.

ADVANTAGES

- Fast Cure (60 minutes at 70 degrees F)
- Remains Flexible, Even Below Freezing
- Low Temperature Cure
- VOC = 0
- Oil and Fuel Resistant
- Withstands Heavy Forklift Traffic
- Self Leveling
- No Odor, 100% Solids
- Meets FDA / USDA Requirements
- Polishable without Gumming.

APPLICATIONS

- Warehouse Floors
- Commercial Buildings /Walkways
- Manufacturing Plants
- Cold Room / Freezer Floors
- Grind/Seals and Concrete Polishing

PRODUCT DATA

Volumetric Ratio:	1 to 1
Solids:	100%
Hardness, Astm D 2240	Shore A 85
Mixed Viscosity @ 75 F	500 Cps
Application Temperature:	28-85°F And 5° Above the Dew Pt.
Thinning:	Not Required
Pot Life:	~1 Minute
Cure Time:	50-60 Minutes (Traffic)
Shelf Life:	12 Months (Unopened)
Elongation: Astm D-412	180%
Tensile Strength: Astm 412	980 Psi
Tear Strength, Die C Astm D624	190 Pli

Cure time, pot life, and working time are based on a slab temperature of 70-75 F°, and will change accordingly as temperature changes.

COLOR

Joint Filler is available in medium gray, charcoal, black, white, brick red, and safety yellow. Other colors are available on special request and may require more time and additional costs. Please note that natural or non-pigmented material will cure to an ivory-white rather than clear. If the material is curing ivory and not the specified color, the pigment has settled to the container bottom. Be sure to shake or mix well before use.

SURFACE PREPARATION

Open both sides of the joint using either a 4-5" angle grinder or skill saw. Skill saws are recommended when there is more linear footage for ease of installation. V-shaped diamond blades are recommended to ensure the best preparation. Remove any loose, unsound material. Vacuum out any debris and loose concrete. Do not allow for any standing water, as it will react with the Joint Filler, causing bubbling and a weak, unsightly treatment. Larger, deeper joints may require backer rod.

MIXING

The mix ratio of Joint Filler is 1 to 1.

Hand mixing: Pre-mix Part B until uniform. Mix only the volume of material that can be applied within the (45-60 second) gel time. Mix equal parts of A and B with a drill and jiffy mixer for 30 seconds and apply immediately. The product's low viscosity helps insure easy mixing.

Low pressure pump with static mixer: Pre-mix the Part B 45-60seconds until uniform. Pour the 2 components into the correct hoppers and prime/ purge the pump. Always run a test shot to check for proper mixing. When mixing with a static mixer from a cartridge or bulk pump, do not allow the material to sit in the static mixer longer than the 45 second gel time. This will result in a clogged mixer and nozzle replacement will be necessary.

For best results, slightly overfill cracks and joints and then shave off the excess material with a sharp blade within 30 minutes of application. This produces a filled joint that is flush with the floor surface.

Try to avoid unnecessary starts and stops when using any static mixer application. The change in flow disrupts proper mixing an may result in sticky (off ratio) spots in the joints. Apply with even, steady pressure when using a hand gun.

PACKAGING

Joint Filler is available in 3 different kit sizes:

	Part A	Part B
Cartridges	11 oz	11 oz
2-Gallon Kit	1 gal	1 gal
10 Gallon Kit	5 gal	5 gal

MATERIAL ESTIMATION

Theoretical material usage in linear feet/gallon.
1 cartridge equals about 0.17 gal.

Width	1/8"	3/16"	1/4"	3/8"	1/2"	3/4"	1"
Depth							
1/8"	1232	821	616	411	308	205	154
1/4"	616	411	308	205	154	103	77
1/2"	308	205	154	103	77	51	39
3/4"	205	137	103	68	51	24	26
1"	154	103	77	51	39	26	19
1-1/2"	103	68	51	34	26	19	13
2"	77	51	39	26	19	13	10
2-1/2"	62	41	31	21	15	10	7
3"	51	34	26	17	13	8	6
4"	39	26	19	13	10	7	5

Example: how much material will be required to fill a joint that is 1/2" deep by 1/4" wide and 80 feet long. From the chart above, we see that for this joint will need 1 gallon to fill 154 feet. We only need 80 linear feet so $80 / 154 \times 1 \text{ gallon} = .52 \text{ gallons}$. Add 15% for overfill/waste and it ends up at 0.55 gallons. To calculate the number of cartridges: $0.55 \text{ gallons} / 0.17 \text{ gallons per cartridge} = 3.2$ or 4 cartridges.

For proper adhesion in joints, the recommended fill depth should be 1 inch for a 1/4" wide joint and about 1.5" for a 1/2" wide joint.

CLEANUP

Joint Filler may be cleaned up with water and degreaser in the liquid state. Otherwise, a strong solvent may be required while Joint Filler is setting up.

WARRANTY

ONYX Concrete Coatings products are warranted for 1 year after date of manufacture. Please refer to the ONYX Limited Material Warranty for additional clarification.

SAFETY

Consult Joint Filler safety data sheet. Avoid contact with eyes and skin. Always wear protective eyewear, clothing, and gloves. Safety always comes first.

MAINTENANCE

Refer to the ONYX Maintenance and Cleaning Guidelines.

PRODUCT LIMITATIONS

Always read ONYX PRODUCT LIMITATION GUIDELINES document prior to installation as the content below is only partial information.

Joint Filler is not suitable for exterior or vertical applications. Joint Filler is not suitable for freezers or cold areas where thermal shock/cycling is present. Joint Filler should be installed over concrete that has been cured for a minimum of 28 days. Though discoloration may occur over an extended period of time from exposure to ultraviolet light, the performance / physical properties will not be affected. Do not install Joint Filler over decks. Shrinkage in concrete or excessive movement from seismic activity may result in minor cracking, as is the case with all polyurea joint filler. Do not install a concrete coating or non-breathing floor covering, or VCT over Joint Filler. (It is okay to apply the single-component Lithium Densifier or Lithium Guard over Joint Filler.)