

Sections

- 03** 03 01 30 **Joint & Crack Repair & Maintenance**
- 07** 07 92 16 **Rapid Setting Rigid Joint Sealant**

# POLY-STRONG™ PS-55

RAPID SETTING, 100% SOLIDS, POLYUREA/POLYURETHANE CRACK FILLER DESIGNED FOR INDUSTRIAL, RETAIL OR COMMERCIAL CONCRETE FLOORS

**Description**

Two-component, 100% solids, polyurethane/polyurea hybrid crack filler designed for injection into vertical or horizontal cracks in structural materials including concrete, bricks, and stone. It bonds, repairs and seals cracks, spalls, pop-outs and defects in heavy traffic industrial concrete floors. When cured, Poly-Strong™ PS-55 is a highly durable rigid structural polymer with a Shore D Hardness of 70-75. It has very high adhesive and tensile properties; creating a long-lasting bond to the surface that outlasts many notable competing products.

**Solids**

100%

**Available Colors**

- Cool Gray
- Neutral Gray
- Warm Gray
- Tough Gray

**Sizes**

250ml "Standard" Cartridge\*

**Surfaces**

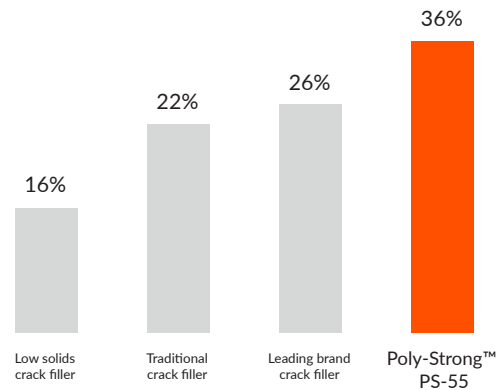
Interior use only. Perfect on interior concrete, exposed concrete, warehouses, retail, industrial and commercial floors.

\* Includes static mixer tip

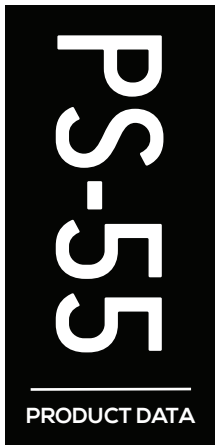
**HARDNESS / TENSION STRENGTH / TEAR STRENGTH**

**Performance Tested:**

- ASTM D-624
- ASTM D-638
- ASTM D-412



Average Percentage Improvement vs. Control



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## TECHNOLOGY // ADVANTAGES

- **Extremely Durable Repair** - Offers a superior level of hardness, tensile, and compressive strength that extends normal service-life and performance expectations.
- **Ready for Traffic in 15 Minutes** - Ultra fast drying to reduce commercial, industrial, retail or business downtime.
- **Self Leveling** - Easy to apply with curing results unmatched in the industry.
- **Wide Application and Service Temp Range**
- **Highest in Class Tensile, Compressive, Elongation and Tear Strength** - ASTM Tested to provide a new standard of confidence.
- **USDA/FDA/CFIA/LEED v4.1 Approval** - PS-55 is acceptable for use in USDA, FDA, and CFIA regulated facilities. PS-55 contains no VOC's and is fully compliant with USGBC LEED v4.1 green building standards.
- **Can be ground flush with floor in 25 minutes**
- **Low-viscosity** allows for penetration into cracks as narrow as 1/64" (.016" or .40 mm)
- **Odorless** - Unlike most crack repair products, this product contains virtually no odor, zero VOC's, and no harmful vapors. Can be applied indoors without the use of masks or ventilator.
- **Non-Hazardous** - Can be shipped overnight by air carrier to arrive on job site, next day.

## TECHNICAL PROPERTIES

### Viscosity Profile

|              |         |
|--------------|---------|
| Part A ..... | 120 cps |
| Part B ..... | 70 cps  |
| Mixed .....  | 100 cps |

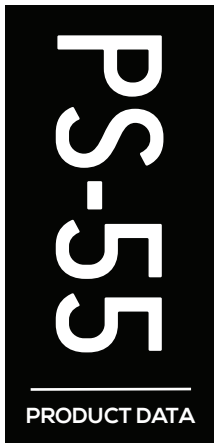
### Reaction Profile

(100 grams, 74°F/23°C Sample)

|                      |            |
|----------------------|------------|
| Gel Time .....       | 1-1.25 min |
| Tack-Free Time ..... | 5-8 min    |
| Traffic Ready .....  | 15-30 min  |

### Typical Physical Properties

|                                         |               |
|-----------------------------------------|---------------|
| Hardness .....                          | Shore D 70-75 |
| Compressive Strength (ASTM D-638) ..... | 4000 psi      |
| Tensile Strength (ASTM D412) .....      | 5500 psi      |
| Elongation (ASTM D412) .....            | 6.0-8.0 %     |
| Die C Tear Strength (ASTM D624) .....   | 400 pli       |
| Mix Ratio by Volume .....               | 1:1           |
| Odor .....                              | Odorless      |
| Shrinkage .....                         | Negligible    |



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## TESTING DATA

### Meets the Following ASTM Test Methods:

#### ASTM D-638

Standard Test Method for Tensile Properties of Plastics

#### ASTM D-412

Standard Test Methods for Vulcanized Rubber and Thermoplastic Elastomers - Tension

#### ASTM D-624

Standard Test Method for Measuring the Tear Strength of Thermoset Rubbers, Thermoplastic Elastomers, and Silicones

### In Accordances with ASTM D-3912, Poly-Strong PS-55 Provides Chemical Resistance Against:

Acetic Acid, Acetone, Ammonium Hydroxide, Brake Fluid, Diesel Fuel, Gasoline / Unleaded, Hexane, Hot Tub Water, brominated, Hydraulic Fluid, Hydraulic Oil, Hydrochloric Acid, Jet Fuel, Methanol, 5% Methanol/Gasoline, 2-Methylbutane, Motor Oil, MTBE, 5% MTBE/Gasoline, Phosphoric Acid, Potassium Hydroxide, Propylene Carbonate, Sulfuric Acid, Sodium Hydroxide, Toluene, Vinegar (5% acetic acid), and Water

To request the full chemical stability report, please contact us.

## INFORMATION

### Composition

Poly-Strong™ PS-55 is a two-component, 100% solids, structural polyurethane/polyurea hybrid. When cured, Poly-Strong™ PS-55 is a rigid structural polymer with a Shore D Hardness of 70-75.

### Basic Use

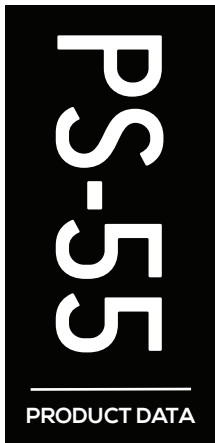
Poly-Strong™ PS-55 was developed to repair random cracks and surface spalls/popouts and other surface defects in industrial concrete floors that are subject to wheeled traffic. Poly-Strong™ PS-55 is designed for use in industrial or retail concrete floors where final building temperatures are 32°F (0°C) to +120°F (49°C).

### Limitations

Poly-Strong™ PS-55 is a structural repair product and should not be used as a floor joint filler. Poly-Strong™ PS-55 is a structural repair product with very high adhesive and tensile properties; consequently it will restrain concrete movement wherever placed and may lead to concrete tearing if substantial concrete movement occurs after placement. Poly-Strong™ PS-55 is not designed for use in temperatures below 32°F (0°C). Poly-Strong™ PS-55 overfill may leave a light stain/shadow on some concrete surfaces. Poly-Strong™ PS-55 may exhibit a moisture reaction on damp or wet surfaces; repair area should be clean and dry.

### Use in USDA/FDA Regulated Facilities

Poly-Strong™ PS-55 is acceptable for use in floors subject to USDA and FDA inspection and regulation.



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## APPLICATION

### Instructions for Use

#### Standard Cartridge

1. Shake well before use (at least 45 seconds).
2. Unscrew cap and pull plug off. Allow cartridge to sit upright for several minutes for liquid to settle and for cartridge to "de-air".
3. Insert flow restrictor into top ports. Place static mixer onto cartridge neck and secure rightly with lock nut.
4. Using a standard / univereal caulking gun, pull back gun piston and securely place cartridge into cradle.
5. Holding gun upward at a 90 degree angle, slowly pull trigger to purge air from cartridge. Drive material towards the top of mixer tip.
6. After material reaches top of static mixer, tilt gun down and squeeze the first 3-4 short of material into a disposable cup, etc. until color appears consistent in nature.

**Note:** Gun should remain pointed down throughout dispensing of cartridge. **DO NOT POINT GUN STRAIGHT BACK UP UNTIL DISPENSING IS COMPLETE.** As material may run back into cartridge and some material may not cure properly.

#### Installation

Poly-Strong™ PS-55 is designed to be mixed using a standard kit with appropriate gun or by hand in very small amounts. Material should be preconditioned to 70-80°F (21-27°C) prior to use for best results.

Poly-Strong™ PS-55 is designed for use in concrete floors at

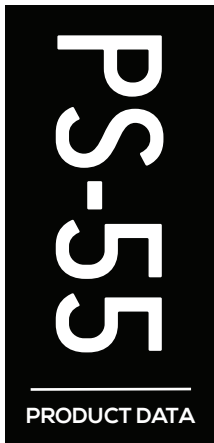
temperatures of 32°F (0°C) or higher. If concrete temperatures are lower than 32°F, temporary heat tenting, etc. must be used to warm up floor area prior to installing material.

Prepare cartridge for dispensing with static mixer and flow restrictor (if included) per kit instructions. Material should be dispensed at a moderate pace using steady pressure. Keep a waste container (disposable cup) handy to dispense Poly-Strong™ PS-55 liquid at start of application or if dispensing is delayed for more than 30 seconds (to avoid cured material in mixer tip).

#### Use with Concrete and Grinding/Polishing Operations

If using Poly-Strong™ PS-55 to repair surface defects in conjunction with grinding/polishing decorative concrete floors, we recommend the following:

When sequencing product installation as part of a concrete grinding/polishing process, install prior to your last metal or transitional tooling step. Use the least aggressive tooling which successfully removes the product and avoids opening more air holes/voids in the floor surface. Best results are obtained by first grinding off or knocking down any excessive overfill with a cup grinder and medium grit finishing pad, Norton Rapid Strip pad or similar, which will not mar the concrete surface. It is further recommended that grinding operations be delayed for 20 minutes or more after initial Poly-Strong™ PS-55 placement (at 70°F/21°C).



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## APPLICATION

### Defect Preparation and Repair

Repair area should be completely free of dust, debris, dirt, oils and moisture prior to application of material.

#### Surface Defects/Spalls

Remove all loose concrete chips, spalls, islands, etc. back to structurally sound concrete with a hammer and chisel or dry cut saw equipped with diamond blade.

Slightly overfill defect and monitor the installation for any seepage. If seepage into defect is detected, dispense additional material to restore flushness with surface. After Poly-Strong™ PS-55 cures into a hard solid (approximately 25 minutes) grind off any excess flush with surface using a cup grinder with medium grit pad or hand grinding stone.

#### Anchor Bolt Holes

If anchor is still intact, cut off as much of the bolt as possible prior to slightly overfilling defect with Poly-Strong™ PS-55.

#### Random Cracks

Cracks up to 1/8" (3 mm) in width should be cleaned using a Nyalox or soft wire wheel or brush and vacuumed prior to filling with neat Poly-Strong™ PS-55. Fill/overfill crack with neat Poly-Strong™ PS-55 and grind off any high spots after cure.

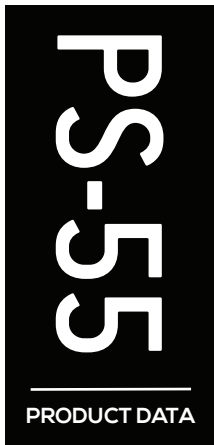
For cracks wider than 1/8" (3 mm) or cracks where continual movement is suspected, an alternate recommended repair method is to rout out the crack using a diamond blade to a depth of 1/2"

(12 mm) to 3/4" (18 mm) and filling the crack with a semi-rigid filler, such as our Poly-Strong™ PS-80 Joint Filler.

### Warranty

KreteTek Industries Inc. warrants our products are manufactured to strict quality assurance specifications and that the information supplied by us is accurate to the best of our knowledge. Such information supplied about our products is not a representation or a warranty. It is supplied on the condition that you shall make your own tests to determine the suitability of our product for your particular purpose. Any use or application other than recommended herein is the sole responsibility of the user. Listed physical properties are typical and should not be construed as specifications. No warranty is made, expressed or implied, regarding such other information, the data on which it is based or the results you will obtain from its use. We shall have no liability for incidental or consequential damages, direct or indirect. No representative is authorized to make any representation or warranty or assume any other liability on our behalf with any sale of our products.

Acceptance of delivery of our product means that you have accepted the terms of this warranty whether or not purchase orders or other documents state terms that vary from this warranty. No representative is authorized to make any representation or warranty or assume any other liability on our behalf with any sales of our products. Our products contain chemicals that may cause serious physical injury. Before using, read the Safety Data Sheet and follow the precautions to prevent bodily harm.



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Purchaser must determine the suitability of the products for the intended use and assumes all risks and liabilities in connection therewith. This information and all further technical advice are based on KreteTek Industries Inc. present knowledge and experience. However, KreteTek Industries Inc. assumes no liability for providing such information and advice including the extent to which such information and advice may relate to existing third party intellectual property rights, especially patent rights, nor shall any legal relationship be created by or arise from the provision of such information and advice. KreteTek Industries Inc. reserves the right to make any changes according to technological progress or further developments. The Purchaser of the Product(s) must test the product(s) for suitability for the intended application and purpose before proceeding with a full application of the product(s). Performance of the product described herein should be verified by testing and carried out by qualified experts.

#### **For professional use only.**

Last revised 6/21

KreteTek Industries Inc.  
66 River Road  
Hudson, NH 03051

[www.Ghostshield.com](http://www.Ghostshield.com)

#### **Customer Service and Technical Support**

1-855-KreteTek (1-855-573-8383)