P-TUFF® SEALANT CR (PTS CR)
A Two Component, 70 Shore D, Concrete Repair Product and Fissure/Crack Filler

1.01 DESCRIPTION
P-Tuff® Sealant CR is a two component, liquid applied, aromatic, polyurethane alloy specifically designed to repair concrete and masonry substrates. The new surface will protect concrete from weather, corrosion, erosion, freeze/thaw spalling, and chemical attacks. Please use the correct product grade that complies with VOC regulations as per federal, state, county and city regulations/codes at the place of installation of product.

1.02 FEATURES
• Excellent Abrasion Resistance
• Good Chemical Resistance
• Rapid Cure Allows Traffic to Resume in 30 Minutes
• Repairs Can Be Made in Hot or Cold Weather
• Waterproof

1.03 TYPICAL USES
• Hairline Cracks
• Thin, Wide or Deep Cracks

1.04 COLOR
Side-A: Yellow, Side-B: Blue

1.05 PACKAGING
2-gallon kit: 1 gallon (3.78 liters) can Side-A, 1 gallon (3.78 liters) can Side-B
10-gallon kit: 5 gallon (18.9 liters) pail of Side-A and 5 gallon (18.9 liters) pail of Side-B

1.06 SURFACE PREPARATION
Hairline Crack Repair: Blow out the cracks with dry compressed air to remove loose and unsound material.

Large Crack Repair: Remove loose and unsound material in the crack by blowing the cracks with dry compressed air. Fill the cracks with sand that is at least 12 mesh or larger.

APPLICATION
2.01 APPLICATION BASICS
The mixing ratio is 1 part Side-A to 1 part Side-B (1A:1B).

P-Tuff® Sealant CR should be applied using a proportioning dispensing system. This type of system transfers, meters, and mixes the co-reactive Side-A and Side-B components at a very high rate and at the required proportions. It transfers from 1 gallon (3.78 liters) or 5 gallon (18.9 liters) containers through proportioning pumps at the specified ratio of 1:1. Both components are pumped through a disposable static mixing tube with restrictor plugs. The combined mixture can then be dispensed into the gravel or sand prepared crack.

Material left in the static mixing tube will thicken in approximately 2-3 minutes and solidify in 6-10 minutes. Static mixing tube should then be discarded.

2.02 FINISHING
P-Tuff® Sealant CR is a rapid cure material that will be dry to the touch in approximately 8-20 minutes. P-Tuff® Sealant CR is very sensitive to heat and moisture. Higher temperatures and/or high humidity will accelerate the cure time. Low temperature and/or low humidity will extend the cure time.

2.03 CLEAN-UP
Equipment should be cleaned immediately after use with an environmentally safe solvent, as permitted under local regulations.

2.04 CHEMICAL RESISTANCE
P-Tuff® Sealant CR was unaffected by the following chemicals (Based on ASTM D-814):

<table>
<thead>
<tr>
<th>TECHNICAL DATA (Based on draw down films)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Specific Gravity</td>
<td>A-Side: 1.10 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>B-Side: 0.947 ± 0.1</td>
</tr>
<tr>
<td>Viscosity at 80ºF (26ºC)</td>
<td>A-Side: 20 ± 5 cps</td>
</tr>
<tr>
<td></td>
<td>B-Side: 20 ± 5 cps</td>
</tr>
<tr>
<td>Mixing Ratio (A:B) by Volume</td>
<td>1:1 (1A:1B)</td>
</tr>
<tr>
<td>Pot Life @ 77ºF (25ºC) 50% RH</td>
<td>240-300 seconds</td>
</tr>
<tr>
<td>Gel Time @ 75ºF (24ºC), 50% RH</td>
<td>3-4 minutes</td>
</tr>
<tr>
<td>Flash Point</td>
<td>&gt;150ºF (&gt;65.6ºC)</td>
</tr>
<tr>
<td>Hardness, ASTM D-2240 Shore A</td>
<td>70 ± 5</td>
</tr>
<tr>
<td>Tensile Strength, ASTM D-412</td>
<td>4000 ± 50 psi (28 ±0.3 mPa)</td>
</tr>
<tr>
<td>Compressive Strength**, ASTM C-42</td>
<td>4750± 400 psi (32.76 ± 2.7 kN/m)</td>
</tr>
<tr>
<td>Elongation, ASTM D-412</td>
<td>7 ± 0.50%</td>
</tr>
<tr>
<td>Bond Strength to Concrete</td>
<td>Excellent</td>
</tr>
<tr>
<td>Thermal Compatibility to Concrete</td>
<td>Good</td>
</tr>
</tbody>
</table>

**Compressive strength was checked on composite of silica sand (12 mesh, 6.5 Mohs minimum hardness) and 18 to 20% of P-Tuff® CR in a 4” x 8” cylinder (10.14 cm x 20.28 cm).
Acidic Chemicals
Acetic Acid, 1%
Acetic Acid, 10%
Hydrochloric Acid, 1%
Hydrochloric Acid, 10%
Sulfuric Acid, 1%
Sulfuric Acid, 10%

Basic Chemicals
Ammonium Hydroxide, 1%
Ammonium Hydroxide, 10%
Oils, Fuels and Other Chemicals
Hydraulic Oil
Motor Oil
Unleaded Gas (Regular)
Unleaded Gas (Premium)
Hexane
IPA MIBK
Xylene

2.05 SHELF LIFE AND STORAGE
P-Tuff® Sealant CR has a shelf life of 12 months from date of manufacture in original, factory-sealed containers when stored indoors at a temperature between 60-95°F (15-35°C).

2.06 LIMITATIONS
- Surfaces must be dry, clean and free of foreign matter.
- Should be used in well-ventilated areas due to its strong odor.
- Containers that have been opened must be used as soon as possible.
- Do not dilute under any circumstance.
- P-Tuff® Sealant CR is for concrete crack repairs only. Slippery when wet.
- Refer to General and Safety Guidelines for more information.

WARNING: This product contains isocyanates and solvent.