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P-TUFF® CR-SF
*Solvent Free Polyurethane Alloy
 Concrete Repair*

DESCRIPTION

P-Tuff® CR-SF is a two component, low odor, liquid applied, polyurethane-alloy concrete repair system designed to repair concrete and masonry substrates. The new surface will protect concrete from weather, corrosion, erosion, freeze/thaw spalling and chemical attack.

FEATURES

- ❖ Waterproof
- ❖ Excellent Abrasion Resistance
- ❖ Repairs Can Be Made in Hot or Cold Weather
- ❖ Rapid Cure Allows Traffic to Resume in 30 Minutes

TYPICAL USES

- ❖ Hairline Cracks
- ❖ Pavement Divots
- ❖ Thin, Wide or Deep Cracks

COLORS

Part-A: Yellow, Part-B: Blue

PACKAGING

Contact PSI for availability.

2 gallon kit: One 1 gallon (3.78 liter) can of Part-A and one 1 gallon (3.78 liter) can of Part-B

10 gallon kit: One 5 gallon (19 liter) pail of Part-A and one 5 gallon (19 liter) pail of Part-B

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 twelve (12) mesh or larger.

APPLICATION

P-Tuff® CR-SF should be applied using a proportioning dispensing system.

TECHNICAL DATA

Hardness, ASTM D-2240	70 ± 5 Shore D
Tensile Strength, ASTM D-412	2200 ± 220 psi
	15.17 ± 1.5MPa
Ultimate Elongation, ASTM D-412	4 ± 0.5%
Compressive Strength**, ASTM C-42	4750 psi
	32.76 MPa
Specific Gravity,	
Part-A	1.139
Part-B	0.967
Mixing Ratio by Weight	118:100
Mixing Ratio by Volume	1:1
Viscosity at 75°F (24°C), Brookfield,	
Part-A	80 ± 20 cps
Part-B	150 ± 30 cps
Pot Life at 75°F (24°C)	80 seconds
Gel Time at 75°F (24°C), 50% RH	1 min
Flash Point	>300°F
	>148.89°C
Bond Strength to Concrete	Excellent
Thermal Compatibility to Concrete	Good

**Compressive strength was checked on composite of Silica sand (12 mesh, 6.5 Moh's minimum hardness) and 18 to 20% of P-TUFF® CR-SF in a 4" X 8" cylinder.

This type of system transfers, meters, and mixes the co-reactive Part-A and Part-B components at a very high rate and at the required proportions. The machine transfers from five or fifty-five gallon containers through proportioning pumps at the specified ratio of 1:1. Both components are pumped through a disposable static mixing tube. The combined mixture can then be dispensed onto the gravel or sand prepared crack.

Material left in the static mixing tube will thicken in approximately 1 minute and solidify in 3 minutes. Static mixing tube should then be discarded.

CURING

P-Tuff® CR-SF is a rapid cure material that will be completely cured in approximately 5-10 minutes.

P-Tuff® CR-SF is very sensitive to heat and moisture. Higher temperatures and/or high humidity will accelerate the cure time.

CHEMICAL RESISTANCE (Based on ASTM D-814)

P-TUFF® CR-SF was unaffected by the following chemicals:

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

Low temperature and/or low humidity may slightly extend the cure time.

EQUIPMENT CLEANUP

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

STORAGE

P-Tuff® CR-SF has a shelf life of one (1) year from date of manufacture in original, factory sealed containers.

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® CR-SF is for concrete crack repairs only.

Refer to general guidelines for more information.

WARNING

This product contains Isocyanates.

Please read all information in the general guidelines, product data sheets, guide specifications and material safety data sheets (MSDS) before applying material. Published technical data and instructions are subject to change without notice. Contact your local PSI representative or visit our website for current technical data and instructions.

LIMITED WARRANTY

PSI warrants its products to be free of manufacturing defects and that they will meet PSI current published physical properties. PSI warrants that its products, when properly installed by a state licensed waterproofing contractor according to PSI guide specifications and product data sheets over a sound, properly prepared substrate, will not allow water migration for a period of 12 months. Seller's sole responsibility shall be to replace that portion of the product which proves to be defective. There are no other warranties by PSI of any nature whatsoever expressed or implied, including any warranty of merchantability or fitness for a particular purpose in connection with this product. PSI shall not be liable for damages of any sort, including remote or consequential damages resulting from any claimed breach of any warranty whether expressed or implied. PSI shall not be responsible for use of this product in a manner to infringe on any patent held by others. In addition, no warranty or guarantee is being issued with respect to appearance, color, fading, chalking, staining, shrinkage, peeling, normal wear and tear or improper application by the applicator. Damage caused by abuse, neglect and lack of proper maintenance, acts of nature and/or physical movement of the substrate or structural defects are also excluded from the limited warranty. PSI reserves the right to conduct performance tests on any material claimed to be defective prior to any repairs by owner, general contractor, or applicator.

DISCLAIMER

All guidelines, recommendations, statements, and technical data contained herein are based on information and tests we believe to be reliable and correct, but accuracy and completeness of said tests are not guaranteed and are not to be construed as a warranty, either expressed or implied. It is the users responsibility to satisfy himself, by his own information and test, to determine suitability of the product for his own intended use, application and job situation and user assumes all risk and liability resulting from his use of the product. We do not suggest or guarantee that any hazard listed herein are the only ones which may exist. Neither seller nor manufacturer shall be liable to the buyer or any third person for any injury, loss or damage directly or indirectly resulting from use of, or inability to use, the product. Recommendations or statements, whether in writing or oral, other than those contained herein shall not be binding upon the manufacturer, unless in writing and signed by a corporate officer of the manufacturer. Technical and application information is provided for the purpose of establishing a general profile of the material and proper application procedures. Test performance results were obtained in a controlled environment and PSI makes no claim that these tests or any other tests, accurately represent all environments.