



P-Tuff® AP

Rapid Setting Asphalt Patch & Repair

1.01 Description

P-Tuff® AP is a unique three component rapid curing, non shrink, hybridized, polymer-based elastomeric mortar that cures to a dense, semi flexible, weather, abrasion, impact and chemical-resistant polymer mortar for the repair of spalls on roadways, bridges and other pavement preservation applications. The combined Side-A and Side-B **P-Tuff® AP** polymers when mixed with Part C aggregate, forms a mortar with excellent long-term properties for all types of repairs. 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

- Chemical and Impact Resistant
- Dries Tack-Free and Skid Resistant
- Excellent Waterproof Barrier
- Fast Drying in low Temperature
- High-Load Bearing Capacity
- New and Aged Asphalt Surfaces
- No High-Temperature Melters Required
- Resists the Effects of Freeze-Thaw Cycling

1.03 TYPICAL USES

- Airfield and Highway Pavement Repairs
- Bridges and Ramps
- Concrete Pavements and Marine Platforms
- Parking Structures
- Mix Liquid Only for Crack-Sealing Applications

1.04 TECHNICAL DATA

Meets: TXDot DMS- 6170 Type I Polymer Concrete

1.05 COLOR

Black

1.06 PACKAGING

0.6 cuft (.017 cum) kit: 0.75 gallon (2.84 liters) of Side A and 0.75 gallon (2.84 liters) of B liquid

One 55 lbs (24.9 kgs) plastic pail of Side C aggregate

Mix with the PSI's **Quickie Pail Mixer** or a 1/2 hp heavy-duty drill.

Bulk Mortar and Overlay Kits are also available upon request.

1.07 COVERAGE GUIDE

0.60 cuft (0.017 cum) kit

1.08 PREPARATION

All surface contamination must be removed by mechanical means, creating a surface profile of exposed sound aggregate that will provide a strong bond surface for the **P-Tuff® AP**. It is recommended to profile surface according to ICRI Guide 03732 to a minimum of CSP 3 by abrasive blasting. Precondition the **P-Tuff® AP** and the Part C Aggregate to ideally 72°F (22.2°C) for 24 hours before use. **P-Tuff® AP** can be heated up to 100°F (38°C) to speed cure at colder temperatures. It is recommended to condition all components when the temperature is below 50°F (10°C).

1.09 MIXING

P-Tuff® AP is shipped in pre-measured 0.5 cuft units. Mix these products ONLY in complete units. DO NOT THIN or add any solvents or other aggregates prior to mixing.

P-Tuff® AP 0.6 cuft (.017 cum) kit: Side A-Resin and Side B-Hardener are packaged in separate 3/4 gallon (2.84 liter) containers. Pour both liquid components into pail and slowly mix thoroughly for 3 minutes using either the PSI's **Rapid Pail™** Mixer or a 1/2+ hp heavy-duty drill with the PSI's **Mortar Paddle™** utilizing the PSI's **1 Man Stand™**.

NOTE: Keep mixer at bottom of pail to avoid introducing air. After liquid components are mixed well, slowly add Part C Aggregate (1- 55 lb. or 25.4 kg plastic pail). Mix only until all aggregate is wetted out.

1.10 APPLICATION

The blended batch must be applied to the surface in 5-10 minutes. Once spread out, working time will be approximately 1/2 hour depending upon temperature. It is extremely important that the material be thoroughly compacted. Care should be taken to assure good compaction on the vertical face of the joint and along the side of the block out or form. Just smoothing the top with a steel float is not compacting the mortar. A small margin trowel, wood block, or other means, can be used for compaction.

When using **P-Tuff® AP** as an expansion-joint header, care should be taken to insure the mortar is even with the plane of the bridge deck or a fraction lower. Leaving the mortar higher than the plane of the bridge deck can subject it to snowplow or other impact damage. If after removal of the forming material the mortar is found to be higher than the adjacent bridge deck or overlay, it may be re-profiled using a hand-held grinder with a diamond cup wheel.

1.11 CURING/DRYING TIME

At 70°F (21°C) (Substrate & air temperature), the mortar will cure sufficiently to accept traffic in four (4) hours. Higher temperatures will shorten the cure while lower temperatures will lengthen the cure time. For temperatures in excess of 100°F (38°C) or lower than 60°F (15°C) contact PSI for recommended procedures and cure time.

1.12 CLEAN UP

All tools, other application or mixing equipment must be cleaned at frequent intervals and while **P-Tuff® AP** remains soft and uncured. Tools and Equipment: Clean with water or PSI's **EnviroClean™**, PSI's **Solvent 100™** or local approved solvent.

1.13 STORAGE AND SHELF LIFE

The material should be stored between 40-90°F (5-33°C) in a cool, dry area away from direct sunlight. For best results, condition material to 65-85°F (18-29°C) before using. Shelf life of properly stored, unopened containers is 24 months.

1.14 CAUTION

Use with adequate ventilation. Wear protective clothing, gloves, and eye protection (goggles, safety glasses and/or face shield). Keep out of the reach of children. Do not take internally. In case of ingestion, seek medical help immediately. May cause skin irritation upon contact, especially if prolonged or repeated exposure. If skin contact occurs, wash immediately with soap and water and seek medical help as needed. If eye contact occurs, flush immediately with clean water and seek medical help as needed. Dispose of waste material in accordance with federal, state and local requirements. Cured resins are innocuous. Dispose of waste material in accordance with federal, state and local requirements exposure. If skin contact occurs, wash immediately with soap and water and seek medical help as needed. If eye contact occurs, flush immediately with clean water and seek medical help as needed. Dispose of waste material in accordance with federal, state and local requirements. Cured resins are innocuous.

READ SDS PRIOR TO USING PRODUCT. FOR PROFESSIONAL USE ONLY. KEEP OUT OF REACH OF CHILDREN. MADE IN THE USA.

CHEMICAL RESISTANCE	
ASTM D471, 77°F (25°C) after 22 hr.	
Deicers	None
Motor Oil	None
Sodium Chloride Solution (5%)	None
Hydraulic Brake Fluid	None
PHYSICALS	
Gel Time	5 minutes
Cure Time @ 77°F (open to traffic)	1 hour
Compressive Strength (ASTM C579, B)	
24 hours	2000 psi (13.8 MPa)
7 days	5880 psi (40.5 MPa)
28 days	7588 psi (52.31 MPa)
Tensile Strength (ASTM D412)	
28 days	2850 psi (19.65 MPa)
Bond Strength (ASTM C882)	
24 hours	1850 psi (12.75 MPa)
Modulus	
24 hours	12270 psi (84.60 MPa)
28 days	23641 psi (162.99 MPa)
Wet Bond (Tex-618 J) (ASTM C157) 7 days	175 psi (1.20 MPa)
Compressive Stress at 0.1" (ASTM C-618-J) 7 days	733 psi (5.05 MPa)
Thermal Compatibility (ASTM C884) 7 days	pass
Resilience % (Tex-618-J) 7 Days	97.2%

Please read all information in the General & Safety Guidelines, Technical Data Sheets, Guide Specifications and Safety Data Sheets (SDS) before applying material. PSI Products are for "Professional Use Only" and preferably applied by professionals who have prior experience with PSI Products or have undergone training in application of PSI Products. Published technical data and instructions are subject to change without notice. Contact your local PSI representative or visit our website for current technical data, instructions, and project specific recommendations.

LIMITED WARRANTY

PSI warrants its products to be free of manufacturing defects and that they will meet PSI current published physical and chemical properties. 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 user's 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.