POLYTUFF SYSTEMS INTERNATIONAL

2250 E. Tropicana Ave
Suite 19-600
Las Vegas, NV 89119

Phone: (866) 977-8833
Fax: (800) 804-0182
Email: sales@polytuffus.com

Web: www.polytuffus.com

TECHNICAL BULLETIN

PTS E-101

Single Component
Fast Curing Joint Sealant
for Metal, Wood and Concrete Surfaces

DESCRIPTION

PTS E-101 is a high performance interior or exterior joint sealant for use in both moving and non-moving joint applications. PTS E-101 provides a long lasting weather tight seal to a variety of building substrates.

FEATURES / BENEFITS

- ❖100% Solids / No Shrinkage
- ❖Single Component / Easy to Tool and Gun; No Mixing
- ❖Fast Skinning / Resists Dirt Pickup on Construction Sites
- ❖No Solvents / Safe to use Indoors or in Confined Spaces; No Odor
- ❖Unique Polymer / Bonds to Damp Masonry
- ❖Non-Slump / Applies Vertically as well as Overhead
- ❖Polyether / Bonds to a Variety of Substrates w/o Priming
- ❖Gun Grade / No Special Tools or Mixing
- ❖Excellent Weathering Properties / Durable Long Lasting Seal

TYPICAL USES

- ❖Roofing Details
- ❖Weather Sealing
- ❖Expansion Joints
- ❖Cove Joints
- ❖Pre-Cast Concrete
- ❖Block and Masonry
- ❖Window / Door Frames
- ❖Curtain Walls
- ❖Siding
- ❖Parapets

SUBSTRATES

❖Concrete	❖Vinyl
❖Block	❖EPDM
❖Brick	❖Foam
❖Stone	❖Masonry
❖Wood	❖Metal
❖Aluminum	❖Galvanized Metal
❖PVC	❖SBS Mod Bit

COLORS

Black, Dark Bronze, Bronze, Limestone, Stone, Tan, Gray and White

Custom colors are available upon request. Minimum quantity required and additional costs may apply.

PACKAGING

10.1 oz (300 ml) Cartridges
24 Cartridges per Case, 60 Cases per pallet

TECHNICAL DATA

Elongation At Break, ASTM D-412	300-400%
Hardness, ASTM C-661	30 ± 3 Shore A
Shear Strength, ASTM D-1002	150 psi
Tack Free Time, ATSM C-679	45 minutes
Slump (Sag), ASTM C-697	Zero Slump
Shrinkage, after 14 days	No measureable shrinkage
Low Temperature Flex	-10°F pass 1/4" mandrel
Service Temperature, continuous service	-40°F to 200°F
Shelf Life	1 year
Specific Gravity (depending on color)	1.6 (13.1-13.5 lbs/gal)
Viscosity (Brookfield RVF, TF Spindle, 4 RPM, 73°F)	1,000,000 cPs
Odor	Mild Ester Smell

COMPLIANCES

- ASTM C-920, Type S, Grade NS, Class 25, use NT, T, M, G, A, and O
- Federal Specification TT-S-00230-C Type II, Class A
- Corps of Engineers CRD-C-541, Type II, Class A
- Canadian Standards Board CAN 19, 13-M82

JOINT PREPARATION

Joints should be cleaned, dry, and free from all contamination including dirt, oils, grease, tar, wax, rust and any other substance that may inhibit the sealant's performance.

Joint Width inches (mm)	Joint Depth inches (mm)
1/4 - 1/2 (6-13)	1/4 (6)
1/2 - 3/4 (13-19)	1/4 - 3/8 (6-10)
3/4 - 1 (19-25)	3/8 - 1/2 (10-13)
1 - 2 (25-50)	1/2 (13)

JOINT DESIGN

Install all joint applications per ASTM and SWRI recommendations and guidelines. Joints shall be designed with a depth to width ratio of 1:2 (joint depth one-half the width). Refer to ASTM and SWRI for Joint Prep guidelines. It is recommended that the joint shall be no less then ¼" wide by ¼" deep (6 mm x 6 mm). The maximum depth of sealant shall be ½" (13 mm). Control the depth of the sealant by using a backer rod that is 25% larger than the joint opening at standard temperature. Where the joint configuration will not permit a backer rod, it is recommended that an alternative bond breaker be used. Prevention of three-point adhesion is necessary through the use of a backer rod or bond breaker tape to ensure proper joint movement and a long lasting weather-proof seal.

METAL

Prepare all metal in a manner to ensure maximum adhesion*. Remove all rust, scale and residue by wire brushing to a bright metal sheen. Remove films, coatings and oils with an appropriate solvent such as alcohol.

**It is recommended that Kynar-coated substrates be tested for adhesion prior to starting the project. Please contact Technical Services for specific application guidelines and recommendations.*

CONCRETE

Concrete and masonry substrates shall be fully cured and dry prior to the application of the sealant. Remove any contamination by mechanical abrasion, sand blasting or power washing.

COPYRIGHT© JULY 2007 BY POLY-TUFF SYSTEMS INTERNATIONAL. ALL RIGHTS RESERVED

WOOD
Wood shall be clean, sound and dry prior to sealant application. Treated wood shall be allowed to weather for 6 months. Coatings and paint shall be removed (or tested for compatibility) to ensure a proper bond.

PRIMING
In most instances PTS E-101 will not require a prime. However, certain applications or substrates, such as Kynar-coated metal, may require a primer to ensure a long lasting bond and weatherproof seal. It is the user's responsibility to determine the need for a primer. It is recommended that, whereever prolonged immersion is anticipated, a primer be used for best performance.

APPLICATION
PTS E-101 is a one-component, ready-to-use material that requires no mixing or preparation. It is recommended that a quality caulking gun be used to ensure ease of application. Apply when temperatures are above 40°F. When all the joint preparation is complete, cut the plastic nozzle at a 45-degree angle to approximately the size of the joint opening. Begin gunning to fill the joint from the bottom to the surface, ensuring there are no voids or air pockets. Dry tooling is recommended to create a strong mechanical bond against the joint faces.

Do not use PTS E-101 in temperatures below 40°F.

PTS E-101 can be painted after 24 hours.

PTS E-101 can be used in vertical or overhead working conditions.

CLEAN-UP
Wet sealant can be removed using a solvent such as alcohol, or soap and water. Cured PTS E-101 can be removed by abrading or scraping the substrate. Equipment should be cleaned with an environmentally safe solvent, as permitted under local regulations, immediately after use.

CURING
E-101 typically skins over within 15-45 minutes and cures through in 3 to 7 days depending upon temperature, humidity and thickness. Lower temperatures and humidity prolong cure time. Higher temperatures accelerate cure time.

STORAGE
Store in original unopened containers in a cool, dry area. Protect unopened containers from heat and direct sunlight. Elevated temperatures will reduce shelf life.

SHELF LIFE
1 Year from Date of Manufacture when stored in normal environments.

LIMITATIONS
PTS E-101 should not be used in direct contact with single component moisture cure urethane coatings without use of an epoxy primer. Sealant shall be cured for 3-5 days prior to any direct coating with water-cured E-Tuff® 100 or P-Tuff® Classic.

Avoid prolonged contact with skin. Uncured adhesive irritates eyes. In case of contact with eyes, immediately flush with water. Call a physician.

In areas of prolonged chemical exposure contact Technical Services for recommendations. Do not allow uncured PTS E-101 to come into contact with uncured silicone sealants.
Allow treated wood to "cure" for six months prior to application per APA guidelines. Do not use in areas subject to continuous immersion without a primer. Horizontal applications will require tooling. Do not store in elevated temperatures. PTS E-101 will not freeze during storage. To ensure easy gunning, bring to room temperature before application.

Read and ensure that the most up-to-date MSDS and technical guidelines are being followed. Proper use and application are the responsibility of the applicator.

KEEP OUT OF REACH OF CHILDREN.

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.

COPYRIGHT© JULY 2007 BY POLY-TUFF SYSTEMS INTERNATIONAL. ALL RIGHTS RESERVED