

# Product Data Sheet

## USP® APP 160S

USP® APP 160S is a tough smooth surfaced, APP (Atactic Polypropylene) torch applied membrane. Manufactured with a non-woven polyester mat, that is saturated and coated with high quality, non-blown asphaltic bitumen and APP resins for a durable, heat resistant, flexible and easily maintainable membrane. It is designed for use as a base, inter-ply or cap membrane in modified bitumen roof systems.

<u>Physical Properties (ASTM D5147):</u>	<u>Test Results</u>	<u>ASTM D6222 Minimum Standard</u>
Tensile Strength (lbf/in), 0°F (MD/XMD)	120/100 lbf/in	60 lbf/in
Tensile Strength (lbf/in), 73°F (MD/XMD)	100/75 lbf/in	50 lbf/in
Elongation (% @ Max Load), 0°F, (MD/XMD)	52/54%	10%
Elongation (% @ Max Load), 73°F (MD/XMD)	45/45%	23%
Elongation (% @ 5% Max Load), 73°F (MD/XMD)	51/53%	30%
Tear Strength (lbf), (MD/XMD), 73°F, minimum	122/116 lbf	70 lbf
Low Temperature Flexibility, (°F), maximum	32°F (0°C)	32°F
Dimensional Stability, %, maximum	<0.5%	1%
High Temperature Stability, (°F)	230°F (110°C)	230°F
Water Absorption, %, maximum	pass	<3.2%
Moisture Content, %, maximum	pass	<1%

**Product Name:** USP® APP 160S

**Classification:** APP Modified Bitumen

**Application Method:** USP® APP 160S is applied using torch welding techniques.

**Approvals:** Meets ASTM D 6222 Type I, Grade S. USP® APP 160S is UL Classified with Underwriter's Laboratories (UL), is Factory Mutual (FM) Approved, and listed with Florida Building Code (FBC) FL-14405, Texas Department of Insurance (TDI) RC-123, and is Miami-Dade County Approved. Contact U.S. Ply, Inc. for specific/applicable codes.

**Product Data:** USP® APP 160S (typical)

Thickness: 3.5 mm (138 mils)

Weight: 84 lbs/roll (38 kg/m<sup>2</sup>)

Roll Dimensions: 39 3/8" x 32' 9" (1m x 10m). Each roll is approximately 1 square applied.

**Green Standards Information:** USP® APP 160S contains approximately 4.0% of recycled materials by product weight. Materials are comprised of post consumer recycled materials. The post consumer recycled materials are derived from recycled post consumer plastics which averts disposal in landfills or commercial dumps.

**Application:** See most current edition of USP® APP 160 Application Specification Manual for best guidelines for installing this product. Set and align rolls before application with at least 3" (7.6 cm) side laps and 6" (15.3 cm) end laps. Adjacent end laps shall be staggered 18" (45.7 cm). Stagger laps between the base ply and APP membrane. Apply sufficient heat, with a torch, to the back of the sheet to melt the asphalt to a semi-liquid state, while heating the base at the same time. A minimum of 3/8" (10 mm) compound flow-out must be obtained at all seam areas. Do not exceed a maximum 1" (25 mm) compound flow-out. Roll sheet into place, applying pressure with foot or roller on all

laps immediately after rolling in. Apply extra pressure to avoid creating open channels, where three or more membranes are lapped. **Base Flashing:** APP 160 roof systems must be flashed according to USP® APP 160 Flashing Details. **Surfacing:** When USP® APP 160S is used as a cap ply it must be coated with a roof coating. All reflective coatings require periodic recoating, which is the responsibility of the owner. The roof coating must be maintained in satisfactory condition to maintain the U. S. Ply warranty coverage.

**CAUTION:** Application of APP membranes utilizes open flame from a torch. Improper use of a torch can result in physical injury as well as damage to property. Surfaces or structures which come in contact with the molten product or the open flame may catch fire or the applicator may suffer burns. All personnel involved in roofing should be properly trained in safety and fire prevention and proper use of a propane torch device. Proper clothing and equipment should be worn at all times on the job site. Follow all local fire codes; have proper fire extinguishers in working condition, on the roof and readily available.

All values given are approximate and are subject to change without notice. There is no implied or express warranty given through these values or statements, nor are there any assertions that the product purchased has been individually tested to conform to these standards. Testing is performed on a random basis by "in-house" and independent "third party" evaluation for the purpose of classification and or approval. Acceptance, purchase and selection of these products are the sole responsibility of the buyer or buyer's representative. We assume no responsibility for coverage, performance or injuries resulting from use. Liability, if any, is limited to replacement of the product. NO OTHER WARRANTY OR GUARANTEE OF ANY KIND IS MADE BY U.S. PLY, INC. EXPRESSED OR IMPLIED; STATUTORY, BY OPERATION OF LAW, OR OTHERWISE, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.



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