POLYFLEX®

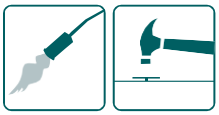
APP (PLASTOMERIC) MEMBRANE

PRODUCT DESCRIPTION

Polyflex is an Atactic Polypropylene (APP) modified bitumen roofing membrane reinforced with a superior non-woven polyester mat that provides flexibility and dimensional stability as well as excellent tear and puncture resistance. The premium APP compound and durable construction provides long-term weathering performance. Polyflex is designed for use as base, interply, or cap sheet in multilayer low-slope assemblies.

The top is constructed with a smooth sand surface while the bottom has a factory applied burn-off film for heat welding applications.

Successive system layers can be heat welded with an additional ply of Polyflex or Polyflex G cap sheets. Polyflex is an approved mechanically attached base sheet for the Velociflex system.



TYPICAL APPLICATIONS

- Heat-welded base, interply or cap sheet.
- Base sheet as part of the Velociflex system.
- New roofing, re-roofing, re-cover and for flashing details.

FEATURES AND BENEFITS

- Proprietary blend of APP modified bitumen allows for superior weathering performance.
- Superior non-woven polyester mat delivers excellent tear and puncture resistance.
- Low-temp flexibility, tensile strength and elongation properties.

TECHNICAL DESCRIPTION*

CSA A123.23-15 Type B, Grade 3

Properties		Type B, Grade 3	Tested Value	
Thickness – mm (mils)		3.5 (140)	4.7 (184)	
Selvedge thickness – mm (mils)		3.5 (140)	4.7 (184)	
Mass per unit area – kg/m2 (lbs/100 ft2)		3.4 (69)	5.0 (102)	
Back surface coating thickness (only for heat-welded sheets), min. – mm (mils)		1.0 (40)	1.09 (43)	
			Before Heat Conditioning	After Heat Conditioning
Strain energy, min. – kN/m (lbf/in)	At 23 ± 2°C (73.4 ± 3.6°F)	5.5 (31)	MD - 7.5 (43) XMD - 5.6 (32)	MD - 6.3 (36) XMD - 5.5 (31)
	At -18 ± 2°C (-4 ± 3.6°F)	3.0 (17)	MD - 6.9 (39) XMD - 4.7 (27)	MD - 5.4 (31) XMD - 3.7 (21)
Peak load, min. – kN/m (lbf/in)	At 23 ± 2°C (73.4 ± 3.6°F)	See Tested Value	MD - 18.4 (105) XMD - 10.7 (61)	MD - 18.7 (107) XMD - 11.7 (67)
	At -18 ± 2°C (-4 ± 3.6°F)	See Tested Value	MD - 23.3 (133) XMD - 15.1 (86)	MD - 23.6 (135) XMD - 16.1 (92)
Elongation at peak load, %	At 23 ± 2°C (73.4 ± 3.6°F)	See Tested Value	MD - 56 XMD - 68	MD - 43 XMD - 50
	At -18 ± 2°C (-4 ± 3.6°F)	See Tested Value	MD - 42 XMD - 42	MD - 29 XMD - 24
Ultimate elongation at 23 ± 2°C, %		See Tested Value	MD - 61 XMD - 78	MD - 48 XMD - 70
Dimensional stability, max., %		1.0%	MD - 1.0 / XMD - 0.0	
Low temperature flexibility, max. – °C (°F)		0 (32)	MD - Pass XMD - Pass	MD - Pass XMD - Pass
Resistance to puncture		Pass	Pass	
Moisture content, max, %		1.0%	0.0	

*The properties in this table are "as manufactured" unless otherwise noted

PRODUCT DATA**

Net Coverage (Approx).... 100 ft² (9.3 m²)
Weight (Approx) ..... 102 lbs (46 kg)
Thickness (Nominal) ..... 160 mils (4.0 mm)
Roll Size .....32'10" × 39 3/8" (10 m × 1 m)
Rolls/Pallet.....23

**All values are nominal at time of manufacturing

APPLICABLE STANDARDS

- ASTM D6222, Type I, Grade S
- UL Classified
- FM Approved
- ICC ESR-2018
- Florida Building Code
- Miami-Dade County Approved
- Texas Department of Insurance

PRODUCT CODES

- PF40SPZ (Sand/Film)

POLYGLASS®
MAPEI GROUP
www.polyglass.us

Edition Date: 10/21 • Doc# Polyflex

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APPLICATION INSTRUCTIONS

Polyflex is intended to be used as a base, interply or cap sheet in new or re-roof applications. Polyflex may be applied directly to non-combustible substrates.

- Apply over clean, dry, dust and debris-free substrates. When fully bonding, prime concrete decks and required substrates, prior to application with PG 100 Fast-Drying Asphalt Primer or applicable ASTM D-41 asphalt primer.
- When re-roofing, remove all prior roofing materials down to a clean debris-free substrate and properly close-off all abandoned roof penetrations.
- Concrete or steel decks shall be designed with proper expansion devices.
- Wood decks shall have all joints blocked and properly supported.
- Ensure the fire rating of the assembly over any combustible substrate.
- Ensure the installation of Polyflex does not prevent the ventilation of existing construction.
- Do not apply over shingles or any granulated surface.
- While installing Polyflex:

  1. Start at the low point of the roof.
  2. Unroll the material and allow to relax.
  3. Install with traditional torch roofing techniques ensuring proper heating of the roofing material.
  4. Do not heat the substrate.
  5. Position successive rolls providing a minimum 6" end lap and 3" side lap. Asphalt bleed out shall be ¼" to ⅜" on all seams.
  6. It is suggested but not mandatory that laps shall be rolled with a 6"-wide roller immediately after heat welding.

- For use in the Velociflex system as an in-seam attached base sheet, contact Polyglass Technical Services for installation instructions.
- Details and flashing may be installed using Polyflex with torch applied techniques. Do not use cold adhesives or hot asphalt. Check project details for proper installation requirements.
- For detailed drawings and recommended installation procedures of typical roof segments, such as drip edge and T-joint conditions, please refer to our website at, www.polyglass.us.

MANUFACTURING FACILITIES

- Fernley, NV
- Hazleton, PA
- Waco, TX
- Winter Haven, FL

CORPORATE HEADQUARTERS

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Questions? technical@polyglass.com

Product Disclaimer: Unless otherwise incorporated into or part of a supplemental manufacturer's warranty, Polyglass warrants its product(s) against manufacturing defects in its product that directly results in leakage for a period of 5 years.

Refer to safety data sheet (SDS) for specific data and handling of our products. All data furnished refers to standard production and is given in good faith within the applicable manufacturing and testing tolerances.

Polyglass U.S.A., Inc., reserves the right to improve and change its products at any time without prior notice. Polyglass U.S.A., Inc. cannot be held responsible for the use of its products under conditions beyond its own control. For most current product data and warranty information, visit www.polyglass.us

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