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INTERNATIONAL ASSOCIATION OF PLUMBING AND MECHANICAL OFFICIALS

MATERIAL AND PROPERTY STANDARD FOR

FIELD-FABRICATED TILING KITS

PS 46 – 2010

1. PURPOSE

- 1.1** The purpose of this standard is to supply supplemental information for field-fabricated tiling kits. Its purpose is to serve as a guide for producers, distributors, architects, engineers, contractors, installers, inspectors and users; to promote understanding regarding materials and manufacture, and to provide for identifying field-fabricated tiling kits.
- 1.2** The provisions of this standard are not intended to prevent the use of any alternate material or method of construction, provided any such alternate meets the intent and requirements of document and changes are amended to this standard.

2. SCOPE

- 2.1** This standard covers requirements for field-fabricated tiling kits. This standard covers methods of testing, other significant properties in addition to the method of marking and identification.

3. REFERENCED DOCUMENTS

- 3.1** All standards referenced herein shall be the current edition of those standards.

ANSI A118.10	Load Bearing, Bonded, Waterproof Membranes for Thin-Set Ceramics Tile and Dimension Stone Installations
ANSI Z124.1.2	Plastic Bathtubs and Shower Units
ASME A112.18.2/CSA B125.2	Plumbing Supply Fittings
ASTM B209	Aluminum and Aluminum-Alloy Sheet and Plate
ASTM D 1418	Rubber and Rubber Latexes-Nomenclature
ASTM D 1668	Glass Fabrics (Woven and Treated) for Roofing and Waterproofing
ASTM D 2235	Solvent Cement for Acrylonitrile-Butadiene- Styrene (ABS) Plastic Pipe and Fittings
ASTM D 3965	Rigid Acrylonitrile-Butadiene-Styrene (ABS) Materials for Pipe and Fittings

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IAPMO PS 106
UL 969

Pre-Fabricated, Tileable Shower Receptors
Marking and Labeling Systems

4. GENERAL REQUIREMENTS

- 4.1 Material.** All ABS material shall be a minimum cell class of 31323 complying with ASTM D 3965 having a minimum wall thickness of 3/8 inches. All aluminum shall be a minimum 3003 alloy complying with ASTM B 209 having a minimum wall thickness of .025 inches and when used in a honey comb design, the over minimum thickness shall be 0.5 inches. All polystyrene material shall have a minimum wall thickness of ½ inches and comply with following minimum property requirements:

<u>Property</u>	<u>Value</u>	<u>ASTM Test Method</u>
a) Shear Strength	34 psi	C 273
b) Flexural Strength	212 psi	C 203
c) Tensile Strength	33 psi	D 1623
d) Compressive Strength	36 psi	D 1621
e) Linear Coeff. of Therm Expan.	3.5×10^{-5} in/°F	D 696
Modulus of Rupture	0.23 Btu in/hr ft ² °F	C 158
f) R-Value @ 75°F	4.3 hr ft ² °F / Btu / in	C 518

- 4.1.1 Liner.** Polymer cement coating shall comply with ANSI A118.10. Fiberglass mesh shall comply with ASTM D 1668.
- 4.2 Adhesive.** Silicone adhesive or grout shall comply with the requirements of ASTM D 1418 with a minimum tensile strength of 200 psi. Polyurethane adhesive shall comply with the requirements of ASTM D 412 with a minimum tensile strength of 200 psi. Thinset shall comply with ANSI 118.10 or ANSI A118.6.
- 4.3 Sealant.** Bonding sealant shall comply with the requirements of ASTM D 2235. Waterproof sealant shall be insoluble having a specific gravity of 0.80.
- 4.4 Shower Pan.** When provided, non-tileable shower pans shall comply with the requirements in ANSI Z124.1.2 or tileable shower pans shall comply with the requirements in IAPMO PS 106.
- 4.4.1** Weep holes are not required for shower pans with integrated drain bodies to allow for drainage and shall only use an additional strainer and crown or collar to hold components in place. All others shall provide a drain that incorporates a subdrain with weep holes.
- 4.5** Each field installation kit shall include installation instructions and any necessary special fastener effectiveness of the moisture seal between the field-installed kits.
- 4.6 Drain.** When provided, drain assembly shall comply with the requirements in ASME A112.18.2/CSA B125.2.

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