



Isurate® Foam Sheet Specification
(Polyisocyanurate Foam - PIR)

1. Standard dimension

- a. Length 2.40 m.
- b. Width 1.20 m.
- c. Thickness 20, 25, 30, 50, 75, 100 mm.

2. Foam physical properties

Physical Property	Typical results ¹	ASTM Method
Density ²	35 kg/m ³	D 1622
Compressive Strength Parallel to Rise (Thickness) Perpendicular to Rise (Width)	180 kPa 200 kPa	D 1621
Closed Cell Content	>95 %	D 2856
Water Absorption	0.24 % by volume	C 272
Water Vapor Permeance	3.40 ng/Pa.s.m	E 96
Service Temperature ²	-183 to +149 °C	-
Dimensional Stability ^{3, 4} @ -40°F (-40°C), 7 days: Volume @ 158°F (70°C)/97% RH, 7 days: Volume @ 212°F (100°C), 7 days: Volume	< +0.1 % Change < +2.0 % Change < +1.0 % Change	D 2126
Thermal Conductivity / Resistance K-Factor Initial (after 10 days) K-Factor Aged (after 6 months) R-Factor Aged	0.022 Initial W /m.°C 0.026 W /m.°C 5.6 h.ft ² °F/Btu	C 518
Surface Burning Characteristics ⁵ Flame Spread @ 4" (10 cm) Smoke Development @ 4" (10 cm) Hot Surface	25 130 Pass	E 84 E 85 C 411

- Remark:** 1. These are nominal values obtained from representative product samples, and are subject to normal manufacturing variances.
2. Average value through the foam cross section of tested sample.
3. Above 300°F, discoloration and charring will occur, resulting in an increased K-Factor in the discolored area. PIR foam will not melt, however, and will maintain integrity.
4. Frequent and severe thermal cycling can produce dimensional changes significantly greater than those listed here. Special design considerations must be made in systems subject to severe cycling.
5. This numerical flame spread data is not intended to reflect hazards presented by this or any other material under actual fire conditions.

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