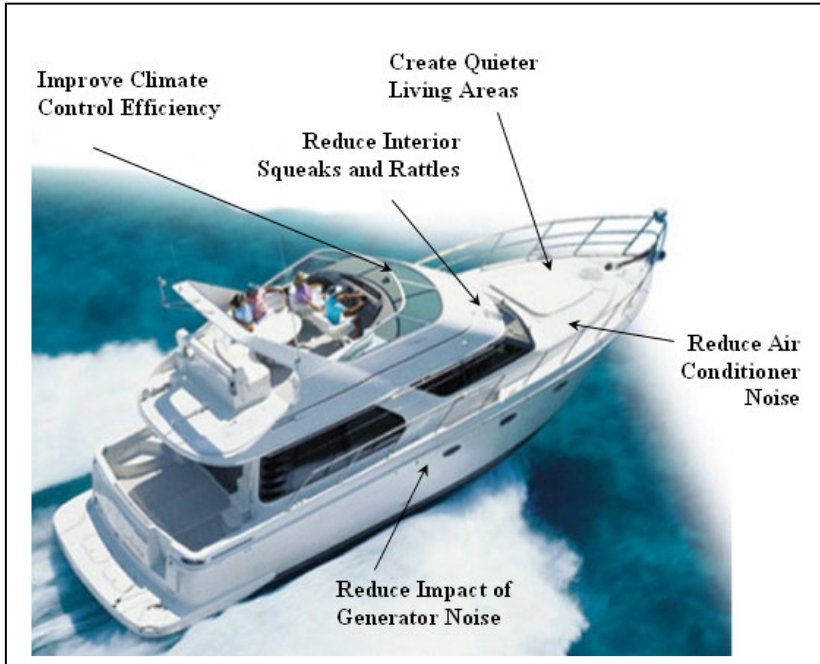


3M Thinsulate™ Acoustic Insulation



Thinsulate is a highly efficient thermal acoustic insulation specifically designed for marine interior applications such as overheads, bulkheads, shipside lining and localized attenuation of machinery spaces.

Thinsulate is very lightweight, conformable and compressible. It is easily cut with serrated shears, die-cut, heat-sealed and thermally bonded to other fabrics and substrates.

Thinsulate is non-microbial and hydrophobic (no moisture pick-up). Thinsulate also exhibits relatively low flame and smoke characteristics as compared to other commonly used insulation foams.

Thinsulate Physical Properties:

Appearance: White non-woven spun fiber with protective scrims (white/black or metalized PET)

Density: 14 kg/m³ (0.9 lbs/ft³)

Nominal Thickness: 4700 series – 25mm (1 inch) 6700 series- 45mm (2 inch)

Thermal R-Value without PET scrim: 4700 series – R 3.8 6700 series- R 5.8

Airflow ASTM C-522: Resistance - 1000 Rayls MKS Resistivity - 23,000 Rayls MKS/meter

Flammability is an important consideration in many applications. The following information is presented to aid your evaluation. Neither **NVT** nor **3M** validate any specific product usage. The purchaser must assure all requirements and regulations are met for the application.

Flammability Results

Test Method

Classification

FMVSS 302

Pass

UL 94 sec.7

94HB

UL 94 sec.12

94HBF and 94HF-2

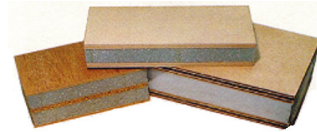
Oxygen Index in accordance with ISO-4589-2 *Plastics - Determination of burning behavior by oxygen index – Part 2: Ambient temperature test and Part 3: Elevated-temperature test.*

Thinsulate™ Marine Insulation	Oxygen Index	
	ISO-4589-2 Ambient Temp	ISO-4589-3 Elevated Temp (60°C)
MA4720 and MA6720	38.2%	38.6%
MA4710 and MA6710	27.5%	28.1%

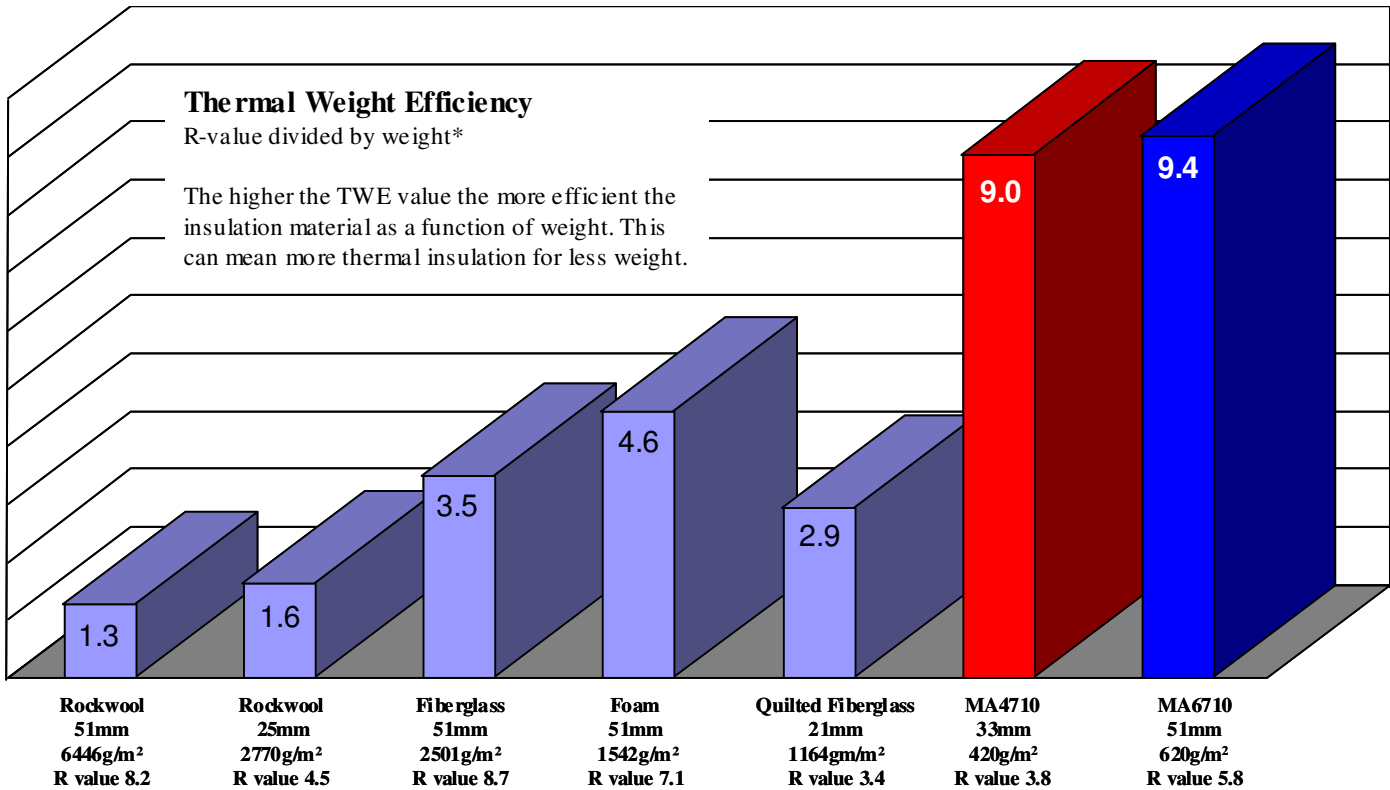
This result satisfies the flammability requirements of ISO-9094-2 *Small Craft – Fire Protection – Part 2 Craft with a hull length of over 15m.*

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3M Thinsulate™ Thermal Weight Efficiency



*R-values determined via test method ASTM C518. Thermal Weight Efficiency calculated by dividing R-value by density of material (kg/m²).

Part #	Description	Thickness	Roll Width and Length
76769	MA4710 Black Scrim Faced	¾" - 1"	60" x 90' (450 sq ft)
76841	MA4720M Metalized PET Film Faced	¾" - 1"	50" x 90' (375 sq ft)
76775	MA6710 Black Scrim Faced	1 ½" - 2"	60" x 90' (450 sq ft)
76844	MA6720M Metalized PET Film Faced	1 ½" - 2"	50" x 90' (375 sq ft)

Certification Status

ISO 9094-2 Small Craft- Fire Protection – Craft with a hull length over 15m

All products pass ISO 4589-3 *Plastics – Determination of Burning Behavior by Oxygen Index*

MA 6720M Expected to fulfill requirement of non-fuel absorbent surface towards engine

Based on this, CE, MCA, Lloyds, DNV and ABS Certification expected for these applications:

	Machinery Spaces	Living Areas
MA 6720M and 4720M	✓ Recommended	
MA 6710 and 4710	✓ Recommended with Non-Fuel Absorbing Protective Overlay	✓ Recommended

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