

ROOF INSULATION



KOROLITE® & AIRBOARD®

The logo for airfoam, featuring a stylized cluster of dots above the word "airfoam" in a lowercase, sans-serif font.

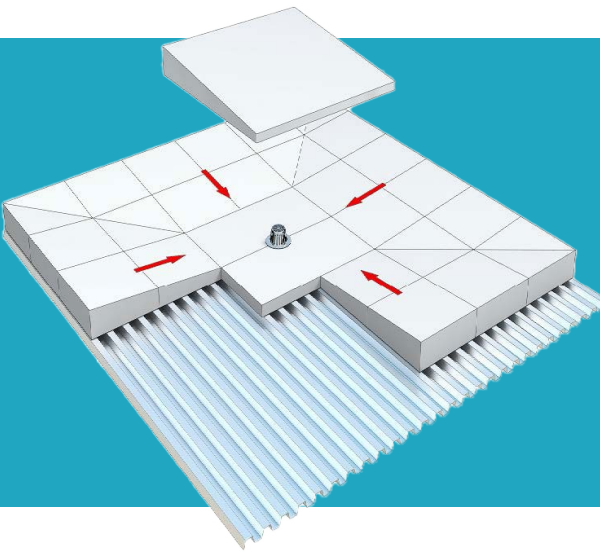
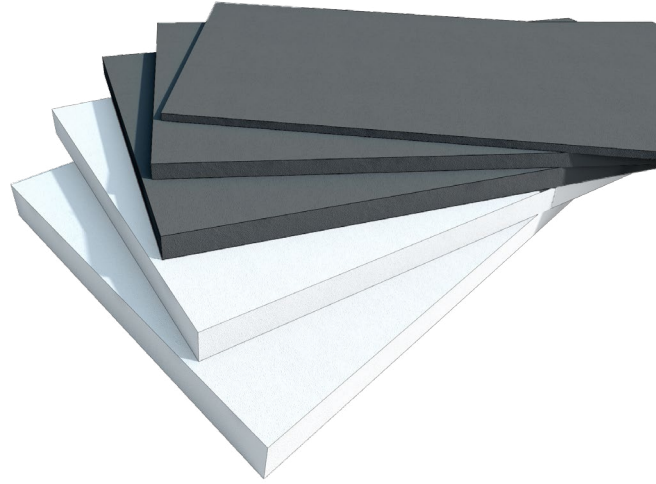
AIRFOAM SOLUTIONS FOR ROOFING

1 Korolite® EPS/GPS

We offer a wide range of high-performance EPS and GPS roof insulation products for new and re-roofing needs, including Insulated Roof Decks, Metal/Steel Decks, Concrete Decks, Wood Decks, Green Roofs, Attics, Cathedral Ceilings, and Ballasted Systems. Our higher density K250, K400, and K600 rigid board EPS is ideal for parkades, rooftop amenity spaces, high foot traffic areas or for areas that require greater compressive strengths.

Korolite EPS/GPS rigid board insulation is suitable for:

- Adhesive Applied Roofing Systems (AARS)
- Mechanically Attached Roofing Systems (MARS)
- Partially Adhered Roofing Systems (PARS)



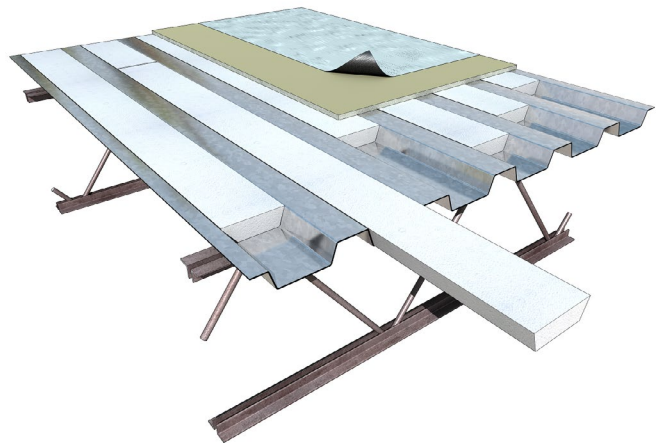
2 Slope Packages

Our EPS/GPS slope packages are custom-cut tapered insulation systems designed to create positive drainage on low-slope or flat roofs, preventing water pooling and extending roof longevity. Starting at a minimum slope of 0.5% and 0" minimum thickness, our packages can be tailored to meet specific drainage requirements. Pre-cut single-piece corner insulation eliminates the need for field cutting, reducing material waste and installation inconsistencies. These pre-cut corners maintain continuous insulation coverage, improving thermal efficiency and minimizing potential air or moisture infiltration points.

3 Custom Flute Fillers

We manufacture precision-cut flute fillers to fit within metal roofing profiles, improving thermal performance and stability of the roof system. These fillers reduce thermal bridging, enhance energy efficiency, and provide a solid substrate for additional insulation layers or roofing finish materials.

- 4' long typically (8' long maximum)
- Square-cut or tapered profile (trapezoid)



4 Airboard® EPS/GPS

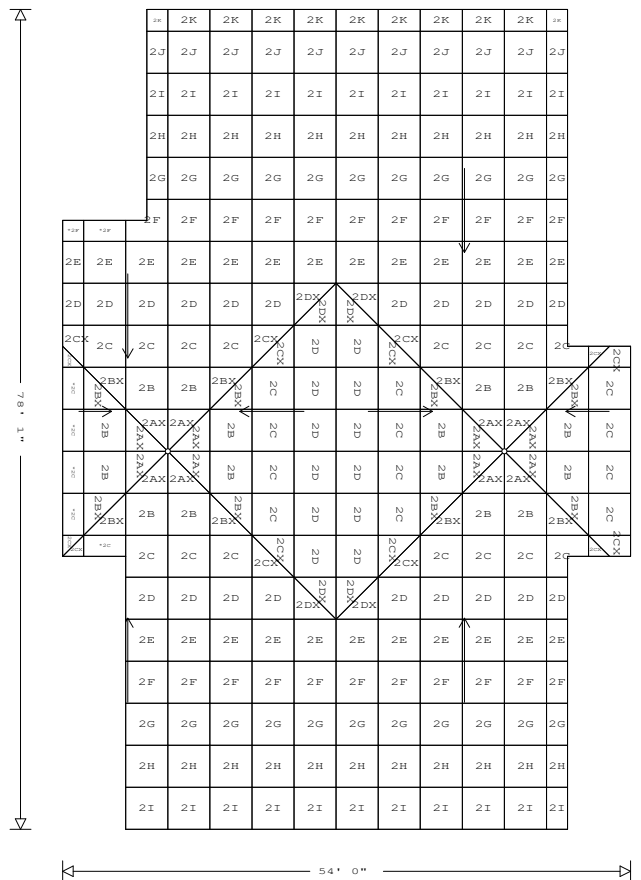
Airboard® combines Korolite® EPS/GPS rigid board insulation with reflective polymeric facers laminated on both sides. It is ideal for interior roofing applications including cathedral ceilings and attics. It acts as a vapor and air barrier when taped and sealed improving building envelope performance.

Airboards are 4' x 8' with thicknesses from 1" to 6" packed in bundles up to 12½" high.

Custom In-House Drawings

We provide shop drawings for slope plans to ensure proper drainage and load distribution in roofing applications. Our in-house design capabilities allow for customized layouts that accommodate structural requirements, water flow considerations, and insulation performance. Slope packages are produced based on the reviewed and approved shop drawings.

- A **four-way tapered insulation system** is the most effective way to move water off the roof, and this approach is highly recommended as drainage is in the center, water is drained from the higher perimeter edges on all four sides.
- A **two-way tapered system** is more rectangular, with the two longest sides sloping to the drain. The slope goes from a low area to either the roof perimeter or at a point between two drain lines.



APPLICATIONS

- Modified Bitumen
- Single-Ply Roofing
- Built-Up Roofing
- Green/Vegetated Roofs
- Hybrid Insulation Systems
- Cathedral Ceilings
- New Construction
- Flute Fillers
- Retrofits



Korolite® EPS & GPS Insulation - Material Properties

Korolite® EPS Properties		Units	K100	K130	K160	K200	K250	K400	K600	Test Standard
Third Party Certified Type	Canada	1	1+	2	2+	3				CAN/ULC-S701.1
	USA	I	VIII	II	II+	IX	XIV	XV		ASTM C578, ICC-ES AC12
Compressive Resistance	psi	10	13	16	20	25	40	60		ASTM D1621 Proc.A
Minimum @ 10% Deformation	kPa	70	90	110	140	172	276	414		
EPS Thermal Resistance ^{1,2} Minimum @ 75°F [24°C]										
R-Value / inch thickness	ft²•hr•°F/(BTU•in)	3.75	3.8	4.04	4.1	4.27	4.27	4.3		ASTM C518 or C177
RSI / 25mm thickness	m²•°C/(W•25mm)	0.65	0.66	0.70	0.71	0.74	0.74	0.75		

Korolite® GPS Properties	Units	KG100	KG130	KG160	KG200	KG250	Test Standard
GPS Thermal Resistance Information ^{1,2}							
R-Value / inch thickness	ft²•hr•°F/(BTU•in)	4.7	4.7	4.7	4.7	4.7	ASTM C518 or C177
RSI / 25mm thickness	m²•°C/(W•25mm)	0.815	0.815	0.815	0.815	0.815	

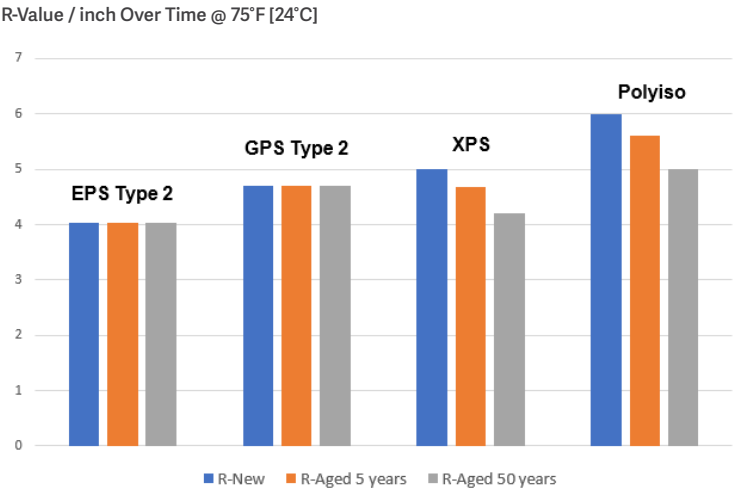
¹ R means resistance to heat flow. The higher the R-value, the greater the insulating power.
² Values are for 1 inch or 25mm thick samples with natural skins intact. Better values will result for thicker materials.

Thermal Performance Over Time

EPS and GPS exhibit consistent, long-term thermal resistance, setting them apart from XPS and Polyiso, which experience a loss in their R-Value over time. The graph below illustrates this comparison.

New EPS and GPS insulation boards have the same R-Value as 5-year-old and 50-year-old boards. The service R-value is constant because air is the insulator from the beginning, which means there is never any off-gassing.

XPS and polyisocyanurate show a marked decline in R-value over the service life of the insulation. This is called thermal drift and is the result of the trapped gasses in the insulation being replaced by air over time.



Ask us about our 30-Year Limited Warranty for Korolite® Expanded Polystyrene (EPS) Insulation.

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