



## Description

InsulFoam 40 is a high-performance insulation consisting of a superior closed-cell, lightweight and resilient expanded polystyrene (EPS). InsulFoam 40 is manufactured in a plank mold and available from the Insulfoam Anchorage, AK facility. The plank mold process provides individually molded panels that typically need no further cutting or trimming. The plank mold process gives the finished product a hard, skin-like finish. InsulFoam 40 meets the compressive strength, flexural strength, dimensional stability and water absorption physical property requirements of ASTM C578, Type VI, *Standard Specification for Rigid, Cellular Polystyrene Thermal Insulation*. In addition, InsulFoam 40 offers a long-term, stable R-Value, is an Energy Star® qualified insulation and qualifies for LEED points.

## Uses

InsulFoam 40 insulation has been used successfully in Alaska for numerous commercial, industrial and residential applications. The following applications are a sample of the many InsulFoam 40 uses:

- Road & Highway Base
- Permafrost Protection
- Foundations
- Waterlines & Septic Systems
- Drill Pads & Mud Pits
- Freezer Slabs
- Railroad Base
- Under Slab
- Utilidors
- Plazas & Parking Structures
- Ice Rinks
- Cold Storage

## Advantages

- **Proven Performance.** The same fundamental EPS chemistry has been in use since the mid-1950s, so the actual performance of the product is well known. In addition, InsulFoam 40 has been successfully used in Alaska for 25 years.
- **Stable R-Value.** Designers are well served knowing the product's thermal properties will remain stable over its entire service life. There is no thermal drift, so the product is eligible for an Insulfoam 20-year thermal performance warranty.
- **Environmentally Friendly.** InsulFoam 40 contains no formaldehyde or ozone-depleting CFCs or HCFCs and is 100% recyclable.
- **Water-Resistant.** InsulFoam 40 does not readily absorb moisture from the environment.
- **Locally Produced.** InsulFoam 40 is produced in Anchorage, AK providing reduced lead times in comparison to competing products.



- **Product Acceptance.** InsulFoam 40 has been accepted and used by numerous institutions and public companies. Some entities of note are: FHWA, Alaska DOT, US Army Corp of Engineers, Municipality of Anchorage, Fairbanks North Star Borough, Mat-Su Borough, ARCO, Phillips, Alyeska, AWWU, FAA, and GSA. InsulFoam 40 also meets the strength and water resistance properties of AASHTO M230 (Type VI). Please contact your local Insulfoam representative for details.

## Sizes

InsulFoam 40 is available in 2' x 8' and 4' x 8' planks with standard thicknesses of 1" and 2". InsulFoam 40 is also available in other thicknesses with little to no impact on lead time.

## Key Product Comparisons

Property	InsulFoam 40	Type VI XPS	Test Method
Compressive Strength (psi, 5% deformation)	40	40	ASTM D1621
Flexural Strength (psi)	100	60	ASTM C203
Water Absorption (max. % vol.)	0.3	0.3	ASTM C272
Water Vapor Transmission (perm.)	1.1	1.1	ASTM E96
Dimensional Stability (maximum %)	2%	2%	ASTM D2126

### R-Value Comparisons

R-Value	InsulFoam 40	Type VI XPS	Test Method
<b>Warranted R-Values @ 20 years</b>	4.9/inch 4.5/inch	Not Warranted Not Warranted	ASTM C518 @ 40 °F @ 75 °F
<b>Warranted R-Values @ 15 years</b>	4.9/inch 4.5/inch	4.9/inch 4.5/inch	ASTM C518 @ 40 °F @ 75 °F
<b>Published R-Value (Thermal Resistance)</b>	5.0/inch 4.9/inch 4.5/inch	5.6/inch 5.4/inch 5.0/inch	ASTM C518 @ 25 °F @ 40 °F @ 75 °F

### Additional Comparisons

Product Features	InsulFoam 40	Type VI XPS
<b>Stable R-Value</b>	Yes	No
<b>Free of CFC or HCFC</b>	Yes	No
<b>Made in Alaska</b>	Yes	No
<b>LEED Points for Transportation</b>	Yes	No