



Plasti-Fab's EPS products are manufactured to the highest standards. Our expertise in making EPS rigid foam insulation extends from molecules to municipalities.

What you need to know about

# EPS vs. XPS

EPS is the acronym for expanded polystyrene, which is a thermoplastic rigid foam material made from polystyrene beads. XPS is the acronym for extruded polystyrene, which is produced from solid polystyrene crystals.

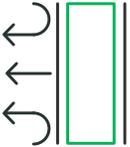
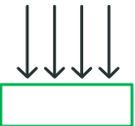
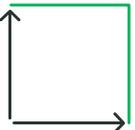
EPS has the **best price** per inch of R-Value and the R-Value won't diminish over time, making Plasti-Fab's EPS solutions more cost-effective than other insulation products, including XPS.

Our EPS products are GREENGUARD certified, have superior material properties that boost energy efficiency, and have a lifetime **Global Warming Potential (GWP) that is 31 times less than XPS.**

Plasti-Fab manufactures its own resin and turns the resin into rigid foam products. Technical data gathered throughout the vertically integrated manufacturing process is used to develop CCMC-listed products and applications, support ASTM standards development, and drive research and development. These efforts are supported by our in-house SCC-accredited technical centre.

# Which should you choose?

## Key considerations:

|  | EPS   | XPS   |
|--|---|---|
|  <p>R-value</p>                             | Product R-value ranges from R3.75 to R4.7 (GPS) per inch            | Product R-value is R5 per inch                                      |
|  <p>Long-term Thermal Resistance (LTTR)</p> | Not applicable (won't lose R-value over time)                       | Loss can be up to 84.5% of R-Value over the life of the product.*** |
|  <p>Environmental Impact</p>               | *Global Warming Impact 73% Less than XPS at 2.79 kg CO <sub>2</sub> | Global Warming Impact of 87 kg CO <sub>2</sub> **                   |
|  <p>Water Absorption</p>                  | Dries over time to help maintain R-Value                            | 0.7% by volume, which further reduces R-value**                     |
|  <p>Compressive Resistance</p>            | 10 to 60 psi available to suit application                          | 10 to 100 psi available, specified at a higher cost                 |
|  <p>Dimensions Available</p>              | Standard and Custom Cuts Available                                  | Supplied in 2' or 4' widths and maximum 4" thick                    |

### LTTR and why it matters

LTTR stands for Long-Term Thermal Resistance. It is used to predict the R-value for cellular plastic insulations that are manufactured with the intent to retain a blowing agent (other than air) for a period longer than 180 days and is intended to represent the R-value after five years of in situ aging. Certain types of insulation, like XPS, lose R-value over the life of the product, making it necessary for the manufacturer to provide information about the expected future R-value.

LTTR does not apply to EPS because it isn't manufactured with the intent to retain a blowing agent and, due to its closed-cell nature, there is no loss of R-value over time.

\*Environmental Product Declaration of Expanded Polystyrene (EPS) Insulation per ISO 14025, UL Environment Declaration No. 4787238561.101.1 (2017)

\*\*Environmental Product Declaration of Extruded Polystyrene (XPS) Insulation per ISO 14025, UL Environment Declaration No. 4786548101.101.1 (2014)

\*\*\* Please refer to information at [plastifab.com](http://plastifab.com) for full details.



Plasti-Fab helps create lasting communities by supplying Expanded Polystyrene (EPS) products to construction and civil infrastructure projects. As the only vertically-integrated EPS company in North America, we are leading the industry with solutions that are healthy for people, communities, and the planet.

[www.plastifab.com](http://www.plastifab.com)