

Polyiso & EPS Hybrid System

FAQs

Q: What is a hybrid insulation system?

A: A hybrid insulation system is designed to take advantage of the capabilities of both polyiso and EPS when used in the same assembly.

Q: Why would I want to use a hybrid insulation system?

A: There are many benefits to using a hybrid insulation system. EPS can be utilized to complete tapered packages and create fill panels for thick insulation systems. These methods have the potential to reduce your material costs as well as labor costs.

Q: What are the cost savings of a hybrid system?

A: By replacing the fill layers of standard polyiso with larger thicknesses of EPS, savings are realized in reduced layers of insulation, adhesive, and potential labor costs.

Q: Who should I contact for an EPS tapered plan?

A: Insulfoam has a team of designers on staff. Please contact the team at designcenter@carlisleccm.com or contact your local Carlisle Manufacturer's Representative.

Q: What is the insulation value of EPS?

A: Depending on the density, EPS has an R-value of 3.9 to 4.5 per inch.

Q: How thick can Insulfoam create EPS panels?

A: Insulfoam can create EPS flat and EPS tapered panels in thicknesses up to 40".

Q: Can the roof system be induction welded?

A: Yes, EPS is compatible with induction welding with the use of cardboard disks.

Q: What membranes can be laid directly to EPS?

A: Ballasted EPDM can be in direct contact with EPS.

Q: Can membranes be adhered directly to EPS?

A: Light-colored FleeceBACK® membranes can be adhered to minimum 1.5-lb density EPS using Flexible FAST™ Adhesive.

Q: Can EPS be adhered to the deck?

A: Yes, EPS can be adhered to metal and concrete decks using Flexible FAST Adhesives.

Q: Can I use the same fastening patterns for EPS as I can with polyiso?

A: Yes, when using a minimum 2" thick layer of polyiso as the top layer.

Q: Can the roof system still be fully adhered?

A: Most roof systems will either have a top layer of polyiso or another type of covering over the EPS. When covered by polyiso, OSB or gypsum products, EPS can be used in a fully adhered system.

Q: Can I use EPS and still obtain FM approval?

A: Yes, there are thousands of assemblies on RoofNav.com that include EPS.

Q: Can I achieve a UL790 Class A fire rating using an EPS hybrid system?

A: Yes. When covered by a 1" layer of polyiso, 1/2" layer of HD polyiso, 1/4" layer of Gypsum coverboard, 7/16" layer of OSB, 1/2" layer of EcoStorm VSH™ Coverboard, or 1/2" layer of wood fiber board, the EPS hybrid system meets UL790 Class A requirements.

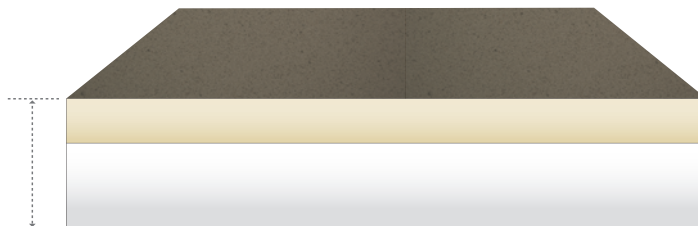
Q: Is EPS approved for direct-to-metal deck applications?

A: EPS meets building code requirements for direct-to-deck applications. The building code requires that when foam plastic is applied directly on a deck that it meets FM4450 or UL1256. Insulfoam EPS meets UL1256. If a job is FM insured, a base layer of gypsum board is required to meet FM fire approvals.

Roof Insulation System



Hybrid Roof Insulation System



HYBRID SYSTEMS UTILIZING 1PCF DENSITY EPS AT R-3.85/INCH

R-20: Two Layers of 1.75" ISO

R-25: Two Layers of 2.2" ISO

R-30: Two Layers of 2.6" ISO

R-35: Two Layers of 3.1" ISO

R-38: Two layers of 3.3" ISO

R-20: Base layer of 2.25" EPS (R-8.66) + 2" ISO (R-11.4)

R-25: Base layer of 3.6" EPS (R-13.86) + 2" ISO (R-11.4)

R-30: Base layer of 4.9" EPS (R-18.87) + 2" ISO (R-11.4)

R-35: Base layer of 6.25" EPS (R-24.06) + 2" ISO (R-11.4)

R-38: Base layer of 7" EPS (R-26.95) + 2" ISO (R-11.4)