



Why Lexar?

Lexar foam insulation is an EPS foam (expanded polystyrene). Your other options are: XPS foam (extruded polystyrene), poly iso, spray foam, or no insulation whatsoever.

These other options are all widely used, but the following is our reasons why we recommend EPS foam as compared to:

1. XPS degrades to the point where its performance is less than 50% of EPS within 15 years of manufacture. That's due to off gassing, a process wherein insulative gases that originally filled the cells of the XPS board escaped, like helium escaping a helium balloon, which I'm sure you're familiar with. Just like argon leaves that window, just like helium escapes that balloon, the HCFC gas leaves the XPS foam starting immediately after manufacturing. Unlike a window, you can't easily replace insulation, and you're stuck with higher energy costs month after month.

2. Polyiso - Poly iso, like XPS loses the insulative gases that initially filled its cells. Plus, if the temp outside gets near 25°F, polyiso does 2 things that make it perform worse – it tends to absorb and retain moisture, and the gas inside poly iso contracts, increasing thermal conductivity (the transfer of energy in and out of your home) and your bills.

3. Spray foam - spray foam may trap moisture beneath the slab, leading to hydrostatic issues or mold. - hydrostatic issues are issues caused by pressure from standing water - it can lead to water seeping through cracks, wall bowing or cracking, mold mildew and rot, and loss of insulation value, and as you've guessed, higher energy costs for you.

4. No insulation - If you do not insulate, as much as 25% of a building's total energy loss occurs through uninsulated below-grade areas such as slabs, crawl spaces, and foundations. This major source of heat loss often goes overlooked. Here's why - heat can travel downward! While heat does rise in air through convection, heat transfer through solids like concrete happens by conduction. That means heat flows from warmer to cooler areas—regardless of direction. If your interior is 70°F and the soil beneath is 40°F, heat will move downward into the ground, resulting in significant energy loss. Concrete, being a good conductor, accelerates this process.

