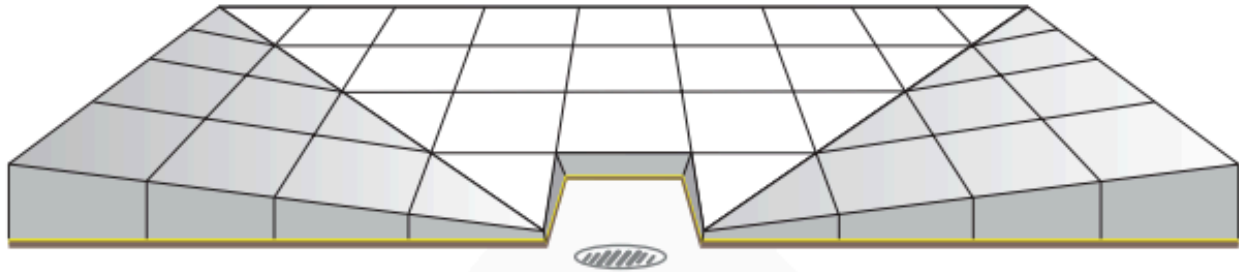




Tapered EPS Roof Insulation

www.SourceMountain.com

Tapered Expanded Polystyrene (EPS) Roof Insulation



Premium Quality: Meets or exceeds ASTM C578 specs, with excellent dimensional stability and compressive strength.

Cost Savings: EPS is significantly less expensive than Polyiso and provides the highest R-value per dollar.

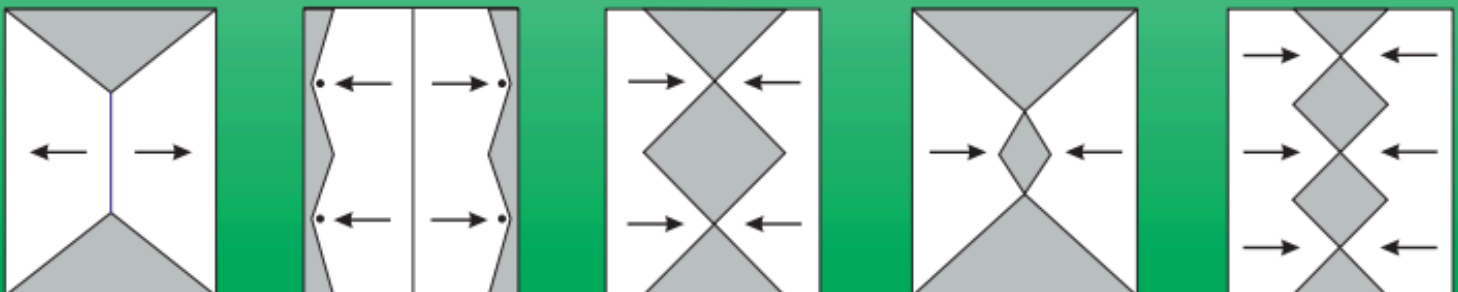
High, Stable R-Value: R-value is permanent because EPS contains only air. Unlike Polyiso or XPS whose blowing agents out-gas, EPS R-values do not degrade over time.

Code Approvals: Underwriters Laboratories Listed, UL Classified TGFU.R7260, UL ER7260 for low slope mechanically attached or ballasted roof systems. Please consult appropriate building codes and roofing membrane / assembly specifications.

Moisture Resistant: Cellofoam EPS is quick drying and does not readily absorb moisture from the air. Its closed-cell structure reduces the absorption and migration of moisture. Thermal and mechanical properties are unaffected by freeze-thaw cycling.

Environmentally Friendly: Cellofoam EPS contains no formaldehyde or ozone-depleting CFCs or HCFCs. Its EPS core is 100% recyclable and may contain recycled material.

Manufactured to Your Needs - Designed to provide positive drainage of water for many roofing and re-roofing applications. Fabricated pieces of tapered expanded polystyrene have a slope of 1/8", 3/16" or 1/4" per foot, as required. Each piece is labeled as it is manufactured to coincide with the actual shop drawing, thus eliminating guesswork by the installers as to the placement of the insulation.





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1/8" per ft. Taper Average R Factors at Various Thicknesses

| | | | | | | | | | | | |
|---------------------------|------|------|------|------|------|------|-------|-------|-------|-------|-------|
| | 4.17 | 5.21 | 6.26 | 7.30 | 8.34 | 9.38 | 10.43 | 11.47 | 12.51 | 13.55 | 14.60 |
| Number of Feet From Drain | 0 | 4 | 8 | 12 | 16 | 20 | 24 | 28 | 32 | 36 | 40 |
| Thickness of Insulation | 1 | 1.5 | 2 | 2.5 | 3 | 3.5 | 4 | 4.5 | 5 | 5.5 | 6 |
| C-Factor | .24 | .19 | .16 | .137 | .12 | .107 | .096 | .087 | .08 | .074 | .068 |

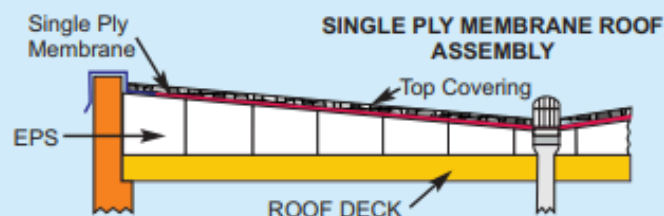
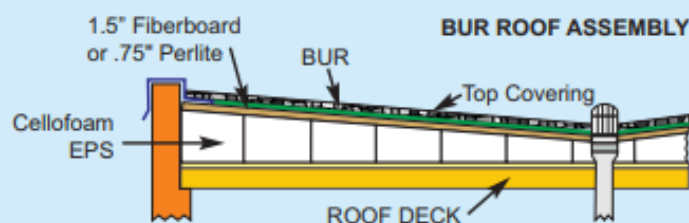
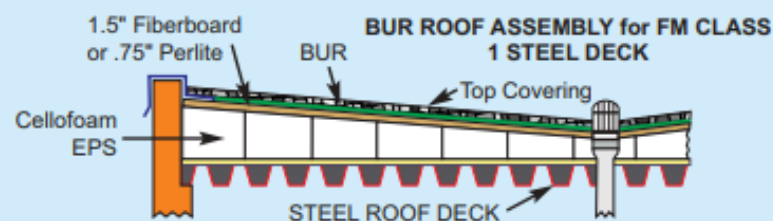
3/16" per ft. Taper Average R Factors at Various Thicknesses

| | | | | | | | | | | | |
|---------------------------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|
| | 4.17 | 5.73 | 7.30 | 8.86 | 10.43 | 11.99 | 13.55 | 15.12 | 16.68 | 18.24 | 19.81 |
| Number of Feet From Drain | 0 | 4 | 8 | 12 | 16 | 20 | 24 | 28 | 32 | 36 | 40 |
| Thickness of Insulation | 1 | 1.75 | 2.5 | 3.25 | 4 | 4.75 | 5.5 | 6.25 | 7 | 7.75 | 8.5 |
| C-Factor | .24 | .175 | .137 | .113 | .096 | .083 | .074 | .066 | .06 | .055 | .05 |

1/4" per ft. Taper Average R Factors at Various Thicknesses

| | | | | | | | | | | | |
|---------------------------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|
| | 4.17 | 6.26 | 8.34 | 10.43 | 12.51 | 14.60 | 16.68 | 18.77 | 20.85 | 22.94 | 25.00 |
| Number of Feet From Drain | 0 | 4 | 8 | 12 | 16 | 20 | 24 | 28 | 32 | 36 | 40 |
| Thickness of Insulation | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| C-Factor | .24 | .16 | .12 | .10 | .08 | .07 | .06 | .053 | .048 | .044 | .04 |

Data shown is computed from published K Factors, and based on 1.0 PCF density Expanded Polystyrene @ 40° F. Higher R values will be obtained if density of EPS is increased as shown in the Typical Physical Properties table below.



| Cellofoam® EPS Typical Physical Properties ¹ | | | ASTM C578 Type | | | |
|---|--------------------|---------------|--|-----------|-----------|-----------|
| | Units | ASTM Test | Type I | Type VIII | Type II | Type IX |
| Density (Nominal) | lb/ft ³ | C303 or D1622 | 1.0 | 1.25 | 1.5 | 2.0 |
| Density (Minimum) | lb/ft ³ | | 0.90 | 1.15 | 1.35 | 1.80 |
| Thermal Resistance | | | | | | |
| R-Value ² | at 25° F | C177 or C518 | 4.35 | 4.54 | 4.76 | 5.00 |
| | at 40° F | | 4.17 | 4.25 | 4.55 | 4.76 |
| | at 75° F | | 3.85 | 3.92 | 4.17 | 4.35 |
| Compressive Strength at 10% deformation | psi | D1621 | 10 - 14 | 13 - 18 | 15 - 21 | 25 - 33 |
| Flexural Strength | psi | C203 | 25 - 30 | 30 - 38 | 40 - 50 | 50 - 75 |
| Water Vapor Permeance 1.0 in. thickness | perm. | E96 | 2.0 - 3.0 | 1.5 - 2.8 | 0.9 - 2.5 | 0.6 - 1.5 |
| Water Absorption by total immersion | volume % | C272 or C1763 | < 1.5 | < 1.5 | < 1.5 | < 1.5 |
| Capillarity | — | — | none | none | none | none |
| Dimensional Stability maximum | change % | D2126 | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Coefficient of Thermal Expansion | in/(in °F) | D696 | 0.000035 | 0.000035 | 0.000035 | 0.000035 |
| Fungus & Bacterial Resistance | - | C1338 | Will not support bacterial or fungus growth; no food value | | | |

¹ Typical physical properties are based on data provided by resin manufacturer, independent test agencies, and Cellofoam North America Inc. All data is for plain, unlaminate EPS foam.

² R means resistance to heat flow. The higher the R value, the greater the insulating power.

Warning: This product is combustible and if exposed to a fire of sufficient heat and intensity may burn rapidly. It should not be left exposed or inadequately protected. Long-term (several months or more) exposure to ultraviolet radiation will cause discoloration. Protect EPS from exposure to hydrocarbons, coal tar pitch solvents, and solvent fumes. Consult specific instructions and applicable building codes for use of this product.

The performance data herein reflects Cellofoam's expectation based on tests conducted in accordance with recognized standard methods from both internal and independent test laboratories.

Cellofoam North America Inc. is an expanded polystyrene foam manufacturer and not an engineering consulting firm. Thus, it is beyond our scope to provide design services on the specific use for our products. Users of our EPS products should consult with appropriate engineering experts to determine the exact type and specifications required for their project to meet structural and other design requirements.