



Table 3: Estimated Embodied Energy of Several Insulation Materials

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Material	Embodied Energy in Btu/lb. (MJ/kg)	Weight per insulating unit ¹ in lbs. (kg)	Embodied Energy per insulating unit in Btu (MJ)
Cellulose ²	750 (1.75)	0.812 (0.37)	600 (0.6)
Fiberglass ³	12,000 (27.9)	0.379 (0.17)	4,550 (4.8)
Mineral wool ²	6,500 (15.1)	0.458 (0.21)	2,980 (3.1)
EPS ³	48,000 (111.6)	0.375 (0.17)	18,000 (19.0)
Polyiso ³	30,000 (69.8)	0.476 (0.22)	14,300 (15.1)

1. "Insulating unit" refers to the mass of insulation required to provide R-20 (RSI-3.52) over one ft² (0.093m) at standard density.

2. Figures from personal communication with manufacturers.

3. Figures from the final report: "Comparative Energy Evaluation of Plastic Products and Their Alternatives for the Building and Construction and Transportation Industries," 1991, Franklin Associates, Ltd., prepared for The Society of the Plastics Industry.

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