

Fiberlite Technologies – Table of Environmental Facts

Type	Installation Methods	R-value per inch (RSI/m)	Raw Materials	Pollution From Manufacture	Indoor Air Quality Impacts	Comments
Cellulose	Loose-fill, wall-spray (damp), dense pack, stabilized	3.6-4.0 (21-26)	Old Newspapers, telephone directories, borates	Negligible	Fibers and chemicals can be irritants	High Recycled content and very low embodied energy
Fiberglass	Batts, Loose-fill, semi-rigid board	3.0-4.0 (15-28)	Silica sand, limestone, boron, recycled glass, PF resin or acrylic resin, ammonia	Formaldehyde emissions and high energy use during manufacture	Fibers can be irritants	High embodied energy
Mineral Wool	Loose-fill, batts, semi-rigid or rigid board	2.8-3.7 (19-26)	Iron-ore blast furnace slag, natural rock, PF binder	Formaldehyde emissions and high energy use during manufacture	Fibers can be irritants	High Embodied Energy; Rigid board can be an excellent foundation drainage and insulator
Cotton	Batts	3.0-3.7 (21-26)	Cotton and polyester mill scraps (especially denim)	Negligible	Considered safe	Two producers so transportation pollution is higher than other insulation
Closed-cell spray polyurethane foams	Spray-in cavity-fill or spray-on roofing	5.8-6.8 (40-47)	Fossil Fuels; HFC-24.5fa blowing agent; non-brominated flame retardant	High energy use during manufacture; global warming potential from HFC blowing agent	Quite toxic during installation (respirators or supplied air required); allow several days of airing out prior to occupancy	Very High embodied Energy
Open-cell, low-density polyurethane foam (Soy)	Spray-in cavity-fill	3.6-3.8 (25-27)	Fossil Fuels and soybeans; water as blowing agent; non-brominated flame retardant	High energy use during manufacture	Quite toxic during installation (respirators or supplied air required); allow several days of airing out prior to occupancy	Very High embodied energy