

National Fiber's Cellulose Insulation

How Do They Stack Up?	Cellulose	Fiberglass Batt	Open Cell Foam (1/2 lb. density)	Closed Cell Foam (2 lb. density)
Typical R-Value in 2x6 wall	R-20	R-11*	R-20**	R-21 to 22***
Resists Air Flow	Yes-Dense Packed ✓	No - Air Filter	Yes ✓	Yes ✓
Fills with no Gaps or Voids?	Yes-Dense Packed ✓	No - Gaps & Voids	May Have Voids	May Have Voids
Sound Transmission (STC)	41 ✓	38^	37	37
Smoke when burned?^^	None ✓	50	400+/-	450+/-
Functions as Fireblock?	Yes ✓	No - Melts	No - Melts	No - Melts
Moisture Management	Yes-Hygroscopic ✓	No - Hydrophobic	No - Hydrophobic	No - Hydrophobic
Deters Mold & Pests	Yes - Has Borates ✓	No	No	No
Outgasses?	No ✓	Yes - Formaldehyde	Yes - Weeks	Yes- Years
Recycled Content	82%+ ✓	Up to 35%^^^	Little or None	Little or None
Embodied Energy	750 btu/lb ✓	12,000 btu/lb	up to 30,000 btu/lb	up to 48,000 btu/lb

* Per Conservation Services Group (CSG), R-19 rated fiberglass batt in typical installation

** Assumes cavity is completely filled, which may not be the case.

*** While closed cell foam has an R-Value of 6-6.5/inch, typical installation depth is 3.5" in a 2x6 wall cavity due to challenge in controlling application depth and difficulty of trimming. Thermal bridging by studs in incompletely filled cavities will further degrade actual R-Value.

^ As measured in a laboratory setting - installed performance typically lower.

^^ ASTM E 84 SDI (Smoke Developed Index)

^^^ Only 9%+/- post-consumer, the rest recovered during manufacturing process



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