CLIMA VAULT

Insulation Against Risk

MgO Foam Insulation

TECHNICAL OVERVIEW & PERFORMANCE SPECIFICATIONS

ClimaVault is an advanced eco-friendly insulation solution engineered for superior fire protection, thermal performance, sound attenuation, and durability -- without the toxic tradeoffs.

TECHNICAL DATA

PROPERTY	SPECIFICATION VALUE
Thermal Resistance (R-Value) ASTM C518, ICC ESL 1512	3.5+ per inch of thickness (hr-ft-ºF)/BTU
Alternate R-Value (Goal)	6.0 /in. (see further thermal needle probe testing)
Fire Resistance per ASTM E84 & E136, ICC ESL 1511	Zero Flame Spread, Smoke, NON-Combustible per 136
Fire Stopping (Penetrations) ASTM E814 / UL 1479	F-rating of 120 min (2 hr)
Fire Resistance (Assembly) ASTM E119 / UL 263	In progress, should track E814
Sound Transmission Class (STC) ASTM E90, E413	STC 44
Out-Indoor Transmission Class (OITC) ASTM E90, E1332	OITC 31
Vapor Permeability ASTM E96	4.8 Perms (Class III Vapor Retarder)
Mold Resistance ASTM D 6329	Zero Mold Growth at 75% and 95% rel. humidities
VOC Content EPA methodolgy	Zero VOC's, no off-gassing
Toxicity EPA methodology	Non-Toxic (UL Greenguard Gold Certification Target)
Density ASTM D1622	3-5 pounds per cubic ft
Shrinkage ASTM C951	Zero Shrinkage

PRODUCT DESCRIPTION

ClimaVault is Magnesium-Oxide (MgO "MagOx") cementitious foam insulation. A type of highly air-entrained concrete, the portland cement is replaced by MgO cement and the sand/aggregate replaced by pure Talc. It is mixed on-site and pumped in using proprietary technology into wall cavities -- attic, ceiling, roof, floor, any interior enclosed space -- to fill all voids, forming a continuous seamless insulation and air barrier starving fire of air. It is extremely fire resistant, not from any additives but due to its inherent inert mineral composition.

KEY BENEFITS

- **High Insulation Performance:**
  High R-value, fill voids, blocks air = superior energy efficiency.
- **Unmatched Fire Protection:**
  Non-combustible, Zero flame spread, 2-hr fire-rated assembly.
- **Zero Toxicity:**
  Non-toxic, no VOCs or off-gassing, ideal for chemical sensitive.
- **High Sound Attenuation:**
  Superior STC and OITC ratings for acoustic performance.
- **Low Permeability:**
  Class Ill vapor retarder helps manage moisture.
- **Carbon Reducing:**
  MgO + CO2 => MgCO3, reducing greenhouse gas emissions.
- **No Landfill:**
  Naturally inert components; no contribution to landfill waste.
- **Truly Passive Requiring no Power or Maintenance:**
  Works continuously to stop fires.
- **Pest and Mold Resistant**:
  Resists mold growth and pest intrusion.

www.climavault.com **info@climavault.com** **415-993-2690**