

LYTHERM® LDF

HIGH TEMPERATURE INSULATION MEDIA

Partners
in performance



Non-Respirable Fiber Paper

LyTherm® LDF paper is a lightweight insulating material composed of large diameter, inorganic, high temperature fibers processed into a highly flexible sheet. It is recommended for intermittent use at temperatures up to 1500°F (815°C) with a continuous use of 1400°F (760°C), in applications requiring an alternative to man-made vitreous blown or spun fiber products.

LyTherm LDF paper contains no shot or unfiberized particles which results in a paper with a very low thermal conductivity and homogeneous surface. The product contains an organic binder to provide increased handling strength at room temperature.

- Easy to cut, wrap, or form
- Temperature stability
- Low thermal conductivity
- Non irritating
- Resilient
- Light weight
- Thermal shock resistant
- High heat reflectance
- High tensile strength
- Ceramic fiber alternative
- ISO 9001: 2008 Certified

For outstanding thermal barrier's at high temperatures, trust the LYTHERM® family of ceramic papers.

LYTHERM® LDF Typical Properties

Physical Properties	
Melting Point, °F (°C)	1562 (850)
Use Limit, °F (°C)	1500 (815)
LOI, %	7
Density, lb/ft ³ (kg/m ³)	5-7 (80-112)
Dielectric Strength, V/mil	-
Mullen Burst, psi	-

Chemical Properties %	
Al ₂ O ₃	14.80
SiO ₂	54.30
CaO	17.4
MgO	4.9
Others	8.6

Tensile Strength lb/in (kg/25mm)	
Machine Direction Tensile	14.33-19.84 (6.40-8.86)
Cross Direction Tensile	13.23-18.74 (5.91-8.37)

Apparent Thermal Conductivity

Mean Temperature, °F (°C)	Thermal Conductivity* BTU in/hr ft ² °F (W/mK)
260 (500)	0.055 (0.38)
426 (800)	0.085 (0.59)
704 (1300)	0.170 (1.18)

*Per ASTM C177

LYTHERM® LDF Product Availability

Standard Product Sizes	
Normal Thickness in (mm)	1/8, 1/4, 3/8 (3.20, 6.35, 9.55)
Standard Widths in (mm)	24, 36, 48 (610, 915, 1220)
Custom Widths in (m)	< 72 (< 1.8)

Applications

- Ceramic fiber paper and blanket alternative
- Anode backing pit expansion joints
- Automotive heat shield insulation
- Molten metal filter gaskets
- Appliance insulation
- Aircraft thermal barriers

Testing/Engineering Services

- Thermal imaging for performance validation
- Thermal conductivity for material characterization
- Thermal modeling for engineering solutions

Note: All product data is nominal and does not represent a specification.

All data and statements concerning these products may be considered as being indicative of representative properties and characteristics obtainable. We make no warranty, expressed or implied, concerning actual use or results because of industry specific influences.

