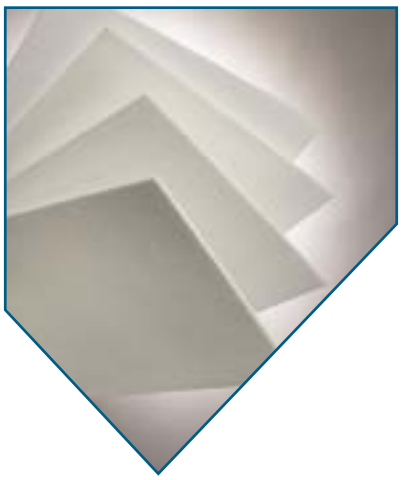
LYTHERM® 3000

HIGH TEMPERATURE CERAMIC PAPERS

Partners in Performance



High Temperature Thermal Barriers

***LyTherm*® 3000-L** alumina paper is a lightweight refractory material processed from high purity bulk alumina fibers formed into a flexible sheet. It is recommended for continuous use at temperatures up to 3000°F (1650°C). LyTherm 300-L is designed for use in high temperature heat treating, ceramic kilns, and in aerospace composites. The alumina fibers contain no unfiberized particles which results in a clean paper with a low thermal conductivity and smooth surface.

***LyTherm*® 3000-LH** is a binderless, 100% inorganic material processed from high purity bulk alumina fibers formed into a flexible sheet. It is recommended for applications where off-gassing of the organic binder cannot be tolerated. LyTherm 3000-LH possesses excellent chemical stability and resists attack from most corrosive agents.

- Easy to cut wrap or form
- Temperature stability
- Low thermal conductivity
- Low shrinkage
- Resilient
- Light weight
- Thermal shock resistant
- High heat reflectance
- Good dielectric strength
- Excellent corrosion resistance
- ISO 9001: 2008 Certified

For outstanding thermal barrier's at high temperatures, trust Lydall LYTHERM® series.

LYTHERM® 3000 Typical Properties

Physical Properties	3000-L	3000-LH
Melting Point, °F (°C)	3600 (1982)	3600 (1982)
Use Limit, °F (°C)	3000 (1650)	3000 (1650)
LOI, %	8	0
Density, lb/ft³ (kg/m³)	8 (128)	6-8 (96-128)
Dielectric Strength, V/mil	-	-

Chemical Properties %	3000-L	3000-LH
Al_2O_3	97	87.50
SiO_2	2.8	9.20
Na_2O	-	-
Fe_2O_3	0.20	-
Others	-	3.30

Apparent Thermal Conductivity

°F	BTU in/hr ft² °F	°C	W/mK
75	0.311	20	0.048
250	0.315	200	0.052
500	0.344	400	0.062
1000	0.478	800	0.104
1500	0.716	1000	0.136
2000	1.056	1200	0.175
2500	1.500	1400	0.221
3000	2.047	1800	0.336

*Per ASTM C201, Hot Face Temperature

LYTHERM® 3000 Product Availability

Standard Product Sizes	
Normal Thickness in (mm)	1/16, 1/8, 1/4 (1.60, 3.20, 6.35)
Stand Widths in (m)	24 (.610)
Custom Widths in (m)	< 27 (< 0.69)

3000-L Applications

- Ceramic kiln liner
- Aerospace insulation composites
- High temperature gaskets in corrosive environments
- Thermal and electrical insulation
- Battery separator media
- Parting agent in brazing, heat treating, and metal forming processes
- Insulation in high temperature hydrogen furnaces

3000-LH Applications

- Vacuum heat treat applications above 2600°F
- Powdered metal sintering
- Tray and basket liner
- Separating media to prevent sticking and contamination
- Heat treating for military, aerospace, nuclear, and medical industries
- Parting agent in brazing, heat treating, and metal forming processes
- Applications requiring low silica content

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.

Lydall® Partners In Performance

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