

LYTHERM® 970

HIGH TEMPERATURE CERAMIC PAPERS

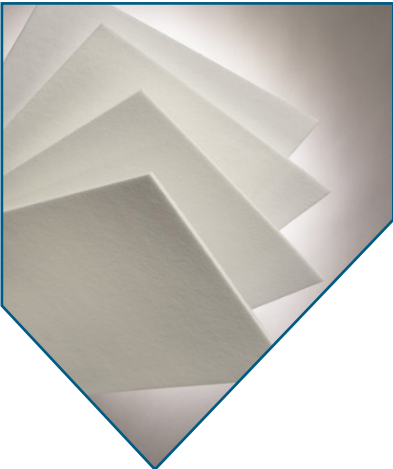
Partners
in performance



Commercial and Binderless Papers

LyTherm® 970-L commercial grade paper is a lightweight refractory material processed from washed, spun, high purity alumina-silica fibers formed into a highly flexible sheet. It is recommended for continuous use at temperatures up to 2300°F (1260°C) in applications where insulating efficiency and high strength are important.

LyTherm® 970-LH binderless grade paper is a 100% inorganic material processed from washed, spun high purity alumina-silica fibers. It is recommended for continuous use at temperatures up to 2300°F (1260°C) in applications where off-gassing of the organic binder cannot be tolerated.



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

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

LYTHERM® 970 Typical Properties

Physical Properties	970-L	970-LH
Melting Point, °F (°C)	3200 (1760)	3200 (1760)
Use Limit, °F (°C)	2300 (1260)	2300 (1260)
LOI, %	8-10	0
Density, lb/ft ³ (kg/m ³)	6-9 (96-144)	9
Dielectric Strength, V/mil	50	50

Chemical Properties %	970-L	970-LH
Al ₂ O ₃	47.00	44.65
SiO ₂	52.62	55.00
Na ₂ O	0.18	0.14
Fe ₂ O ₃	0.03	0.18
Others	0.17	0.03

Tensile Strength lb/in (kg/25mm)	970-L	970-LH
Machine Direction Tensile	16.53 (7.38)	3.31 (1.48)
Cross Direction Tensile	13.23 (5.90)	1.10 (0.49)

Apparent Thermal Conductivity

Mean Temperature, °F (°C)	Thermal Conductivity* BTU in/hr ft ² °F (W/mK)
75 (167)	0.040 (0.280)
177 (350)	0.054 (0.375)
260 (500)	0.066 (0.456)
343 (650)	0.076 (0.530)

*Per ASTM C177

LYTHERM® 970-L Product Availability

Grade	970-L	970-LH
Normal Thickness in (mm)	1/32, 1/16, 1/18, 1/4 (0.8, 1.60, 3.2, 6.35)	1/32, 1/16, 1/18, 1/4 (0.8, 1.60, 3.2, 6.35)
Stand Widths in (mm)	12, 24, 36, 48 (305, 610, 915, 1220)	12, 24 (305, 610)
Custom Widths in (m)	< 72 (< 1.8)	< 27 (< 0.69)

970- L Utility Grade Applications

- Parting plane in refractory linings
- Combustion chamber liners
- Backup lining for metal troughs
- Hot top linings
- Thermal and electrical insulation
- Refractory backup insulation
- Coke oven door shock absorption medium
- Kiln car deck covering

970- LH Binderless Grade Applications

- Vacuum heat treat furnaces
- Powdered metal sintering
- Tray and basket liner
- Separating media to prevent sticking
- Heat treating for military, aerospace, nuclear, and medical industries
- Parting agent in brazing, heat treating, and metal forming processes

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.

