

Pressboard LD Material Data Sheet

Revision 3/24/08

Item:

PRESSBOARD LD, Electrical Insulating Paper

Description:

Cottrell Pressboard LD - This material is made from 100% virgin fiber electrical Kraft pulp. The stock is extensively cleaned and specially refined to insure maximum purity and physical strength. No sizing, clay, fillers, or other chemical additives are used. The absence of impurities ensures that the aging characteristics will meet the most exacting requirements.

Cottrell Pressboard LD is available from 1/32" to 1/4" (.031" to .250"). Pressboard is widely used for barrier insulation, core insulation and spacing in transformers. Cottrell Pressboard is made with excellent elongation properties for various forming applications. It is also used in motors and other electrical applications where high dielectric and physical strengths are required. Our materials conform to IEC60641.

Typical Test Values:

Thickness	1/32" (0.794mm)	1/16" (1.587mm)	3/32" (2.381mm)	1/8" (3.175mm)
Density	1.00 g/cm^3	1.00 g/cm ³	1.00 g/cm ³	1.00 g/cm ³
Density Range	0.95 - 1.10 g/cm ³			
Tensile Strength: MD	12,000 psi	12,000 psi	9,500 psi	9,500 psi
Tensile Strength: CD	6,000 psi	6,000 psi	7,000 psi	7,000 psi
Tensile Strength in Oil: MD	12,000 psi	12,000 psi	6,100 psi	6,100 psi
Tensile Strength in Oil: CD	6,800 psi	6,800 psi	6,800 psi	6,800 psi
Elongation: MD	min 5.0 %	min 5.0 %	min 5.0 %	min 5.0 %
Elongation: CD	min 8.5 %	min 8.5 %	min 8.5 %	min 8.5 %
Elongation in Oil: MD	min 3.0 %	min 3.0 %	min 3.5 %	min 3.5 %
Elongation in Oil: CD	min 3.0 %	min 3.0 %	min 4.0 %	min 4.0 %
Shrinkage: MD	0.4 %	0.4 %	0.4 %	0.4 %
Shrinkage: CD	0.8 %	0.8 %	0.8 %	0.8 %
Shrinkage: Thickness	5.0 %	5.0 %	5.0 %	5.0 %
Oil Absorption	min 20 %	min 20 %	min 20 %	min 20 %
Compressibility	9.0 %	9.0 %	12.0 %	12.0 %
Dielectric Constant @ 25°C	2.2	2.2	2.7	2.7
Dielectric Constant @ 130°C	2.8	2.8	3.2	3.2
Dissipation Factor @ 25°C	0.50 %	0.50 %	0.63 %	0.63 %
Dissipation Factor @ 130°C	0.45 %	0.45 %	0.56 %	0.56 %
Dielectric Breakdown in Oil	25 kV/mm	25 kV/mm	40 kV/mm	40 kV/mm
Ash Content	< .75%	< .75%	< .75%	< .75%
Moisture Content	4-7 %	4 – 7 %	4-7 %	4-7 %
pH Factor	6.0 - 8.0	6.0 - 8.0	6.0 - 8.0	6.0 - 8.0
Conductivity	< 20 μs/cm	< 20 μs/cm	< 20 μs/cm	< 20 μs/cm

- High purity (extremely low dielectric constant and dissipation factor)
- Dimensionally stable (fiber orientation is square thus reduces curl)
- Superior elongation (both directions, allows sharp folds and forming)
- Superior electrical (purity contributes to high dielectric in oil)
- Readily available (14 days typical time to ship)

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