

Pressboard HD Material Data Sheet

Revision 3/25/08

Item:

PRESSBOARD HD, Electrical Insulating Paper

Description:

Cottrell Pressboard HD - 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 HD is available from 1/32" to 1/8" (.031" to .125"). 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.

Typical Test Values:

Thickness	1/32" (0.794mm)	1/16" (1.587mm)	3/32" (2.381mm)	1/8" (3.175mm)
Density	1.20 g/cm ³	1.20 g/cm ³	1.20 g/cm ³	1.20 g/cm ³
Density Range	1.10 - 1.25 g/cm ³			
Tensile Strength: MD	14,000 psi	14,000 psi	11,500 psi	11,500 psi
Tensile Strength: CD	7,500 psi	7,500 psi	6,000 psi	6,000 psi
Tensile Strength in Oil: MD	13,000 psi	13,000 psi	12,000 psi	12,000 psi
Tensile Strength in Oil: CD	7,000 psi	7,000 psi	6,500 psi	6,500 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 4.0 %	min 4.0 %	min 4.5 %	min 4.5 %
Elongation in Oil: CD	min 4.0 %	min 4.0 %	min 5.0 %	min 5.0 %
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 10 %	min 10 %	min 10 %	min 10 %
Compressibility	8.0 %	8.0 %	5.0 %	5.0 %
Dielectric Constant @ 25°C	3.1	3.1	3.3	3.3
Dielectric Constant @ 130°C	3.7	3.7	3.4	3.4
Dissipation Factor @ 25°C	0.60 %	0.60 %	0.70 %	0.70 %
Dissipation Factor @ 130°C	0.55 %	0.55 %	0.52 %	0.52 %
Dielectric Breakdown in Oil	30 kV/mm	30 kV/mm	45 kV/mm	45 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

- These figures are typical values only and do not constitute a specification.
- Current specifications for all materials are always available on request.
- Cottrell Paper Company's continuous improvement efforts may lead to changes in the above data