

3M™ Thermal Shield Non-Woven PPS Insulating Paper

Data Sheet

November 2008

Description

3M™ Thermal Shield™ Non-Woven PPS Insulating Paper is designed for use in applications requiring long-term exposure to high temperatures or resistance to chemicals, including oils, solvents, and most acids and bases. Thermal Shield paper is not susceptible to hydrolysis and can be used in a variety of applications without drying. Thermal Shield paper may be laminated to polyester film or resin-coated to enhance its performance.

Features

- Excellent chemical resistance
- Low moisture absorption
- Cost effective
- Thicknesses: 2 mils (.05 mm) to 7 mils (.18 mm)

Agency Approvals, Self Certification

Meets requirements of:

UL Listed – tested per UL Standard No. UL 1466 and IEC 61857

UL systems recognition through Class 220(R)

Applications

- Layer insulation for resin-encapsulated coils
 - Wire-Wrap for dry-type and liquid-immersed units
 - Loudspeaker voice coils
 - Pressure sensitive tapes
 - Electrical laminates
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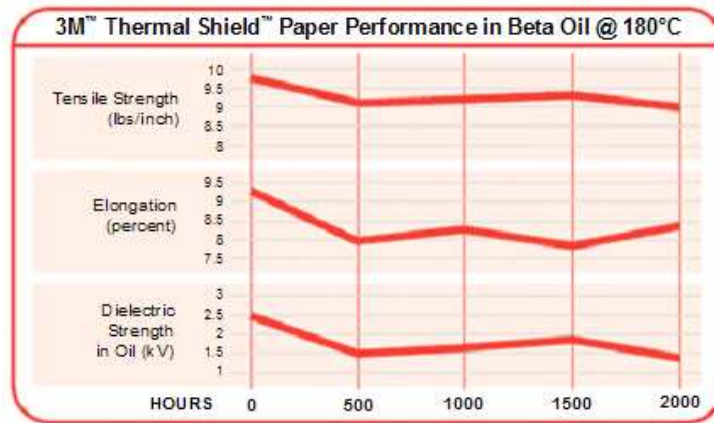


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Typical Properties

Data is not for specifications. Values are typical and should not be considered minimum or maximum. Properties measured at room temperature 73°F (-23°C) unless otherwise stated.

3M™ Thermal Shield™ Non-Woven PPS Insulating Paper Typical Product Properties							
							ASTM TEST METHOD
Nominal Thickness	mils	2	3	4	5	7	D-645
	mm	.05	.08	.10	.13	.18	
Basis Weight	g/m ²	53	74	96	113	134	D-202
	lb/SY	0.10	0.14	0.18	0.21	0.25	
Tensile Strength, MD	kN/m	1.6	2.8	4.4	4.9	6.0	D-828
	lb/inch	9	16	25	28	34	
Elongation, MD	%, min	8	9	10	12	14	D-828
Dielectric Strength	V	350	450	500	600	700	D-149



Thermal Shield Paper is compatible with oils commonly used in liquid-immersed electrical equipment and resists degradation at the elevated temperatures that may occur during overload conditions. Note that under long-term exposure in Beta oil at 180°C, 2-mil Thermal Shield Paper retains its mechanical and dielectric properties. Thermal Shield Paper displays the same high-temperature performance in mineral oil, silicone oil, and Enviro Temp FR-3.

Shelf Life & Storage

This product has a 5-year shelf life from date of manufacture when stored in a humidity controlled storage (50°F/10°C to 80°F/27° C and <75% relative humidity).

Availability

Available in widths up to 65". Customized basis weights and thicknesses are available to meet specifications for unique applications.

Please contact your local distributor; available from 3M.com/flexibleinsulation [Where to Buy] or call 1-866-357-2737 or call 1-800-245-3573.

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