

Electrical insulating material

3M™ LFTI DDP | FP 58202

Description: 3M™ LFTI DDP | FP 58202 with both sides DDP coating has been developed to meet the higher and higher requirements of new high temperature oil filled distribution transformers. New standards like the IEEE C57.154 and the IEC 60076-14 brought new requirements for high temperature oil filled transformers which the conventional cellulose materials are not able to full fill.

Properties: 3M™ LFTI DDP | FP 58202 has an excellent thermal stability, a low moisture absorption, a high thermal conductivity as well as a long long-term reliability. 3M™ LFTI DDP | FP 58202 has long term aging test subjected according IEEE C57.100-2011, appendix A and B and is located in thermal class 155°C under insulating oil.
3M™ LFTI DDP | FP 58202 works according IEC 61249-2-21 standard halogen free and correspond insulation class F.

Application: 3M™ LFTI DDP | FP 58202 will be used as layer insulation in oil filled distribution transformers

oil compatibility: 3M™ LFTI DDP | FP 58202 has been tested according ASTM D-3455 and we can confirm that 3M™ LFTI DDP | FP 58202 meets following requirements without changing dielectric loss, the interfacial tension and the acid number.

3M™ LFTI DDP | FP 58202

Standard color: 3M™ LFTI DDP | FP 58202 will be delivered in white. The both sides DDP coating will be done usually in blue color. Red and colorless is also possible.

Forms of supply: 3M™ LFTI DDP | FP 58202 is available in the thicknesses of 0.13 mm (5 mil), 0,18 mm (7 mil) and 0,25 mm (10 mil). The material can be laminated up to 0,38 mm (15 mil); 0,51 mm (20 mil) and 0,76 mm (30 mil).
 It can be delivered in rolls, reels, sheets, punched parts as well as in transformer components.
 The standard roll width at the moment is 914 mm but it will be available soon also in widths up to 2000 mm
 Please let us have your inquiry for all other requests

Properties	test method	unit	value		
thickness	D-645	mm mil	0,13 5	0,18 7	0,25 10
Area weight	D-202	g/qm	145	190	255
Tensile direction LD	D-828	N/cm	35	46	67
Tensile direction MD	D-828	N/cm	18	23	35
Elongation direction LD	D-828	%	1,2	1,3	1,8
Elongation direction MD	D-828	%	0,9	1,2	1,0
Moisture absorption	D-644	%	<1	<1	< 1
Oil absorption, impregnation Without vaccum	D-3394	%	50	47	42
Breakdown voltage under air	D-149	kV	1,1	1,3	1,8
Breakdown voltage under inslating oil	D-149	kV	6,5	10,2	13,0
Thermal conductivity in oil	E-1530	W/m-K	0,3	0,27	0,26

3M™ LFTI DDP | FP 58202 is RoHS and REACH conform

Dr. Dietrich Müller GmbH

3M™ LFTI DDP | FP 58202

Curing: pay attention that the curing conditions are depending on the size of the working piece, so the exact curing conditions should be determined in the production process:

120°C: 2-3 hours

150°C: 1-2 hours

Shelf life: guaranteed 9 months

Information: The information in this technical data sheet is based on our present knowledge and experiences. It does not release the user from conducting their own trials and examinations to determine the suitability of the product for his intended use. A legally obligatory warranty of certain characteristics or the suitability for a specific targeted application cannot be derived from our data. Depending upon individual cases we recommend consultation with us. Any patent rights as well as existing laws are to be considered by the receiver of our products as their own responsibility.

Dr. Dietrich Müller GmbH