

TECHNICAL DATA

HYPERSEAL® NG SERIES

Conductor Stack Consolidation Tape

DESCRIPTION

Hyperseal® NG is a resin rich pre-preg consisting of woven glass fabric impregnated with an epoxy resin system. Hyperseal® NG is supplied cured to a B-stage, and final cure will result in a well bonded and tough homogenous film which is resistant to abrasion, chemicals and moisture.

The resin system is compatible with PAR Novobond, Conductobond, Kremica.therm and Kremica.flex mica tapes.

APPLICATIONS

Hyperseal® NG is used as a bonding medium in the stack consolidation process in the manufacture of coils and bars for all types of low and high voltage machines operating up to 155°C (Class F).

Usually it is sufficient to apply Hyperseal® NG as a single butt lapped layer or as an open spiral for the purpose of consolidating the conductor stack.

When subjected to heat and pressure, Hyperseal® NG will exhibit a high degree of resin flow bonding the copper conductors together.

Final cure will result in a well bonded dimensionally stable structure onto which the main wall insulation can be applied.

The use of a peel-ply material may be required during the pressing procedure to ensure a surface with good keying properties is achieved. Alternatively, the glossy cured resin rich surface may be carefully roughened in advance of the main wall insulation being applied.

TYPICAL PROPERTIES

Property	Units	NG2/517	NG2LB/519	NG5/513
Thickness	mm	0.13 ± 0.02	0.13 ± 0.02	0.20 ± 0.02
Total weight	g/m ²	168 ± 15	120 ± 15	278 ± 42
Glass fabric weight	g/m ²	48 ± 5	48 ± 5	123 ± 5
Resin weight	g/m ²	120 ± 10	72 ± 10	155 ± 37
Tensile strength	N/cm	> 100	> 100	> 300
Elongation	%	1	1	1
Thermal class, IEC 60085	°C	155 (Class F)	155 (Class F)	155 (Class F)
Maximum short-term temperature	°C	180 (Class H)	180 (Class H)	180 (Class H)
Press time @ 160°C until gelation	Minutes	10 - 15	10 - 15	10 - 15
Post cure time @ 150°C	Hours	3	3	3
Post cure time @ 160°C	Hours	1	1	1
Shelf life, 50% rh @ 5°C	Months	6	6	6
Shelf life, 50% rh @ 20°C	Months	3	3	3

* All tests according to IEC 60626-2 unless otherwise specified

SUPPLY PARAMETERS

Standard widths	12 - 1030mm
Standard roll length	25 metres, others on request
Standard core	55mm plastic, others on request
Interleaving	Material is supplied with a polythene interleave which must be removed before use

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