

TECHNICAL DATA

HYPERFIL® N SERIES - Resin Pre-impregnated Composites

DESCRIPTION

Nomex® Type 410 calendared aramide paper coated on one or both sides with various resin types according to thermal index and desired moulding/laminating characteristics.

During manufacture, the resin coating is cured to a 'B-stage' to give a dry, flexible material capable of being laminated under heat and pressure to form rigid boards or laminated structures.

APPLICATIONS

The Hyperfil® N Series are employed as interleaving insulation on salient pole field coils in electric machines, inter-turn insulation on armature coils in traction motors and moulded slot insulation on armature coils and rotor bars. The Hyperfil® N Series can also be offered as a replacement for resin coated asbestos paper.

TYPICAL PROPERTIES

Hyperfil® designation	NK	NE	NX	NZ	NS
Resin type	Shellac	Epoxy Novolac	Modified Epoxy	Phenol- Aralkyd	Silicone
Thermal index	130°C	155°C	180°C	180°C	220°C
Thermal classification	Class B	Class F	Class H	Class H	Class C
Short-term temperature	300°C	300°C	300°C	300°C	300°C
Nomex® thickness available	0.08mm, 0.13mm, 0.18mm, 0.25mm				
Resin content, gsm					
Single side coated (SS)	20 ± 4	22 ± 4	22 ± 4	18 ± 4	18 ± 4
Double side coated (DS)	26 ± 4	34 ± 4	34 ± 4	26 ± 4	40 ± 4
Recommended laminating pressure, Mpa	0.5 - 1.5	0.5 - 1.5	0.5 - 1.5	0.5 - 1.5	4
Laminating time/temperature	30 mins at 150°C	2 hours at 160°C	30 mins at 180°C	1 hour at 180°C	1 hour at 180°C
Post cure time/temperature	/	4 hours at 160°C	2 hours at 180°C	4 hours at 180°C	8 hours at 180°C
Shelf life, months					
at 20°C	12	3	3	3	6
at 5°C	/	6	6	6	/
Dielectric strength @ 21°C, kV/mm	25 - 30	25 - 30	25 - 30	25 - 30	25 - 30

*Resin content and degree of resin flow can be adjusted to customer requirements.

PACKAGING & SUPPLY

Full width	914mm
Slit tapes	From 10mm wide upwards
Standard roll lengths	50 & 100 metres
Interleaving	Blue polythene

HEALTH & SAFETY

Before use, please refer to Material Safety Data Sheets (MSDS).

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