

VETROFERRITE

IMPROVING MOTOR AND GENERATOR EFFICIENCY

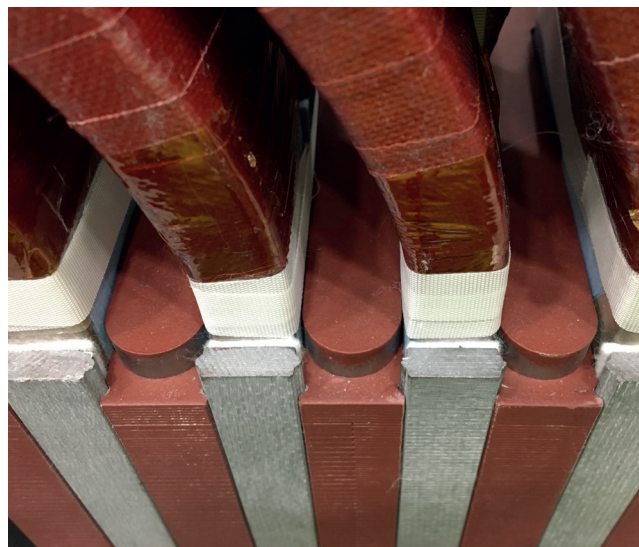


APPLICATION

- + Specific laminate **for magnetic slot wedges**
special type of **glass fabric** and **high temperature epoxy**
- + Resin with approx. **70% iron powder**

BENEFITS

- + Reduces negative effect of slotted cores in electric motors/generators
- + Reduces:
 - Starting current
 - Slot ripple in air gap flux
 - Eddy current losses
- + Therefore:
 - Less heat is created
 - Higher efficiency &
 - Higher power density possible



	Unit	Value
Mechanical properties		
Flexural strength	MPa (psi)	320 (46,000)
E-modulus	MPa (Mpsi)	18000 (2.6)
Flexural strength at 150°C / 1h	MPa (psi)	210 (30,000)
E-modulus at 150°C / 1h	MPa (Mpsi)	14000 (2.0)
Compressive strength $\perp$, at 23°C,	MPa (psi)	420 (61,000)
Thermal properties		
Temperature index (TI)	°C	180 (Class H)
Glass transition temperature	°C (°F)	>160 (> 320)
Linear expansion coefficient //	1.0E-6/K (1.0E-6/°F)	23 13

	Unit	Value
Electrical properties		
Rel. permeability at induction 0,3 Tesla		3.4
Rel. permeability at induction 0,5 Tesla		2.9
Rel. permeability at induction 0,7 Tesla		2.4
Magnetic induction at field intensity of 1000 A/cm		0.5
Magnetic induction at field intensity of 2000 A/cm		0.8
Magnetic induction at field intensity of 3000 A/cm		1.1
Physical properties		
Density	g/cm ³ (lb/ft ³)	3.5 (220)

VALUE PROPOSITION

- + Superior to competitors' materials due to its perfectly balanced iron powder content combined with excellent high temperature epoxy resin.
- + Competitors' materials either have lower magnetic properties or lower mechanical properties at operating temperature
- + Available as prepreg / cured laminate / machined or stamped part
Record of many customers successfully using Vetroferrite for decades for different rotating machines – including large induction motors



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