

# VETROFERRITE

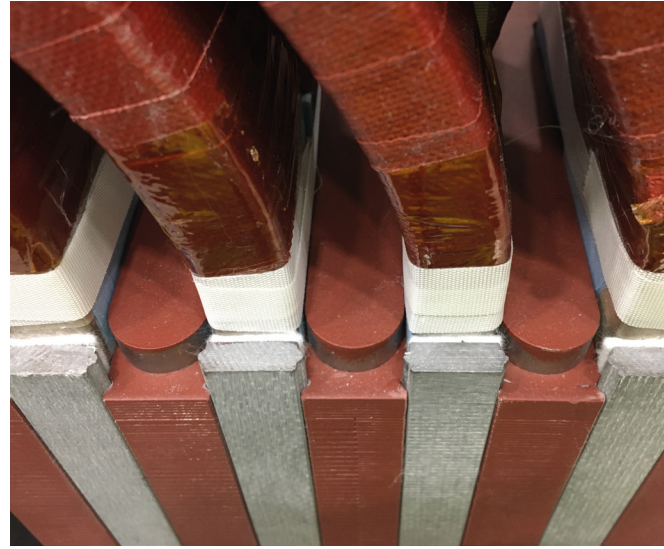
## IMPROVING MOTOR AND GENERATOR EFFICIENCY

### 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
<b>Mechanical properties</b>		
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)
<b>Thermal properties</b>		
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
<b>Electrical properties</b>		
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
<b>Physical properties</b>		
Density	g/cm <sup>3</sup> (lb/ft <sup>3</sup> )	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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The logo for vonRoll, featuring the word 'vonRoll' in a bold, dark blue, sans-serif font. The 'v' and 'o' are lowercase, while 'nRoll' are uppercase.