

## Technical Data Sheet

# Duresco NU 510-1 F

Product Characteristics:	Glass fibre reinforced epoxy moulding compound with very good mechanical properties for high temperature applications
Applications:	Electro insulation material with good adhesion to metal for Commutators, Rotors, Stators etc. Resistant against sterilization processes for Medical applications
Processing methods:	Compression and transfer moulding
Shelf life:	18 months at temperatures $\leq 8^{\circ}\text{C}$ 6 months at temperatures $\leq 18^{\circ}\text{C}$

The information given in this publication is based on the present state of our knowledge but any conclusions and recommendations are made without liability on our part. Buyers and users should make their own assessment of our products under their own conditions and for their own requirements.

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### Mechanical Properties:

	Standard	Unit	Value
Tensile strength	ISO 527	MPa	90
Flexural strength	ISO 178	MPa	160
Surface strain	ISO 178	%	1.1
E-modulus (flexural test)	ISO 178	MPa	18'000
Impact strength	ISO 179-1	kJ/m <sup>2</sup>	11
Notched impact strength	ISO 179-1	kJ/m <sup>2</sup>	4.0

### General and Thermal Properties:

	Standard	Unit	Value
Density	DIN 53479	g/cm <sup>3</sup>	2.0
Water absorption (100°C/30min)	ISO 62	%	0.05
Glass transition temperature	ISO 6721	°C	170
Temperature-time limit TI (flexural strength)	IEC 60216	°C, 20'000h	180
Thermal conductivity	ISO 8894	W/mK	0.70
Coefficient of thermal expansion	ISO 11359-2	ppm/K, (20-105°C)	20

### Electrical Properties:

	Standard	Unit	Value
Volume resistivity	IEC 60093	Ωcm	10 <sup>15</sup>
Dielectric loss factor tan δ	IEC 60250	%, 50 Hz, 25°C	1.0
Dielectric constant ε <sub>r</sub>	IEC 60250	-- , 50 Hz, 25°C	6.0
Electric strength (3mm plate)	IEC 60243-1	kV/mm	20
Comparative tracking index	IEC 60112	CTI	275
Comparative tracking index	IEC 60112	CTI-M	250