

HYBTONITE® - ESD Glue

HYBTONITE®-ESD electrically conductive epoxy System glue

ESD Glue is a liquid epoxy system tailor-made for electrically conductive applications such as windmill lightning protection and anti-static floorings.

The system conductivity is based on carbon nanotubes (CNT) and perfect dispersion is guaranteed by using HYBTONITE®-technology.

HYBTONITE® ESD Glue epoxy formulation comes with different grades depending on application.

Applications

Windmill industry lightning protection, anti-static floorings, semi-conductive glues etc.

TABLE 1: Process data

Before mixing	Mixing	Curing
Clear the surface from dust, grease and moisture.	Mix the resin with curing agent properly for minimum 1 – 2 min.	The product cures even at RT but higher temperature gives better cure and properties.
The higher the temperature of the object the better flow and wetting are achieved.	Let the air come out and settle for min 2 – 5 min. (Use vacuum if possible)	Recommended heat cure is 80 °C.
If possible preheat the resin component to 30 – 40 °C before use.		

Vertical surfaces in hand laminating :

The system can be thickened with 2 % HDK / Aerosil for laminating vertical surfaces. This helps especially against sagging/ draining. Also available as 2-K glue.

The system does not crystallize and has a long storage stability of at least 3 years when is properly stored in closed containers.

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TABLE 2: The System

ESD resin medium viscosity	ESD A		ESD B 35
Resin viscosity (20 °C)	1000 – 1500 mPa·s	Viscosity (20 °C)	1000 – 2000 mPa·s
Resin viscosity (40° C)	200 – 400 mPa·s	Resin viscosity (40 °C)	200 – 500 mPa·s
Density	1,1 – 1,2 g/cm ³	Density	1 – 1,2 g/cm ³
Flash point	>100 °C	Flash point	>100 °C

TABLE 3: Mix System Technical Data

	ESD B35	ESD B23
Mix ratio (by weight)	100:35	100:20
Mix viscosity 25 °C, mPa·s	2500	5000
Density, kg/l	1.15	1.15
Colour	Black	
Gel Time 25 °C (150 g)	3 hours	1 hour
Cure time 80 °C	min 1 hour	
Min Cure Temperature, °C	25	40
Resistivity, Ωm	10 – 100	
Capacitance, nF/m	10 – 100	
Max Tg, °C	80	150
Modulus, GPa	2.5	3.0
Elongation at break, %	13	8

Storage Data

The products can be stored at temperatures between 0 – 60 °C in closed containers in dry place protected from direct sunlight. Storage time is at least 3 years.

Sales Packages

Resin	1100 kg IBC	240 kg drum	20 kg cans
Curing agent	900 kg IBC	180 kg drum	18 kg cans

Available from our factory in Finland (EUROPE).

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