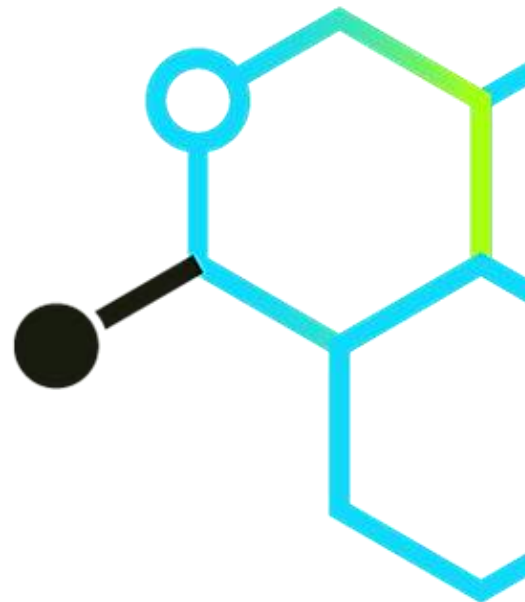


Technical Datasheet

E35B

CARBON NANOTUBE DISPERSION IN BR-952
BLACK



E35B

E35B is a stable dispersion of discrete, dispersed, and functionalized carbon nanotubes (D'Func) in urethane dimethacrylate (UDMA), BR-952. The Masterbatch can be used in rigid, high tensile strength SLA, DLP, or jettable resins to provide conductivity and decreased resistivity. ESD resins produced with E35B can achieve uniform conductivity with high resolution and isotropic mechanical properties

Advantages



- Tunable volume resistivity $10^4 - 10^{11} \Omega$
- Easy addition to a formula without high shear mixing
- Stable dispersion of discrete CNTs

Industries



- Additive Manufacturing

Applications



- ESD resins for vat photopolymerization

TESTED FORMULATION

Component	Control	E35B	Units
BR-952	70.00	0.00	%
E35B	0.00	70.00	
IBOA	30.00	30.00	%
TPO	2.00	2.00	%
OB	0.06	0.00	%
Viscosity, [cps] at 25°C*	500	800	%

*Brookfield - CAP 2000+ @ 25°C

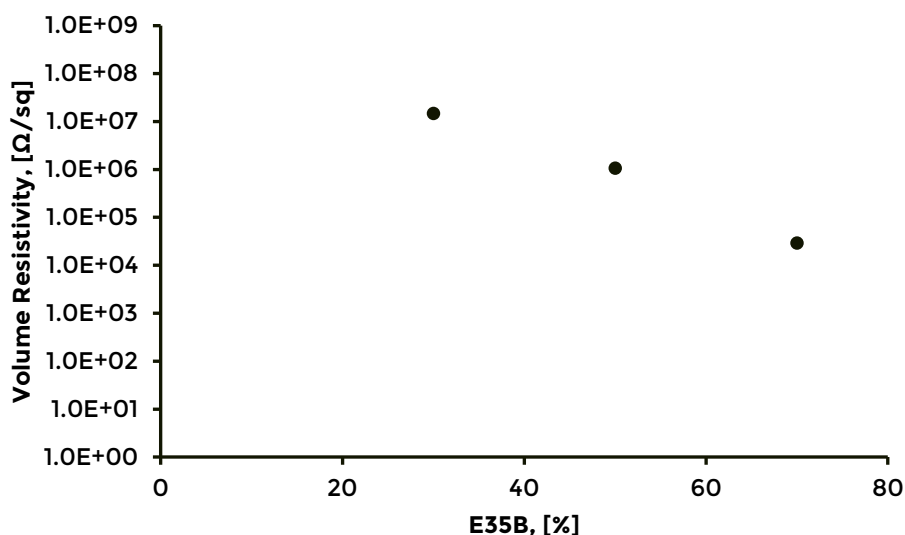


PROPERTIES

CURED MECHANICAL PROPERTIES

Property	Control	70% E35B	Units	Method
Ultimate Tensile Strength	74.5	76.5	MPa	ASTM D 882
Tensile Modulus	2620.0	2757.9	MPa	ASTM D 882
Elongation	5.4	4.0	%	ASTM D 882
Durometer Hardness	89D	90D	**	**
MEK Double Rubs (#)	>200	>200	**	**

VOLUME RESISTIVITY CURVE



UNCURED PROPERTIES

Property	Values	Units	Conditions
Viscosity	91,000	cps	25°C
Appearance	Black paste	**	**
Refractive Index	0	**	25°C
Density	1.13	g/cm ³	25°C

Notes: This product is intended for industrial use only.

Disclaimer: The data contained in this document is based on our current knowledge and experience. The performance of the product may vary with processing conditions, operating conditions, application, or with end use. Mechnano, LLC makes no warranties, expressed or implied, regarding the accuracy of these results with regards to system or end application.

