

MATERIAL DATA SHEET

E35B+

CARBON NANOTUBE DISPERSION FOR UV-CURABLE RESINS

E35B+ is a concentrated masterbatch of dCNT carbon nanotubes dispersed in urethane dimethacrylate (UDMA, BR-952). Designed for integration into SLA, DLP, and jettable photopolymer systems, E35B+ enables the development of ESD-safe formulations in rigid, high-strength resin platforms.

The formulation supports uniform conductivity while maintaining high print resolution and isotropic mechanical properties. By providing a stable, ready-to-integrate nanotube dispersion, E35B+ simplifies the development of photopolymer systems requiring controlled electrical performance.



M-MB-AC-ESD-952-03

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This product, its composition, its method of manufacture, or its use may be covered by one or more patents.
See: <http://mechnano.com/ip/>

DATE:
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REVISION:
V01 02-09-2024

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.

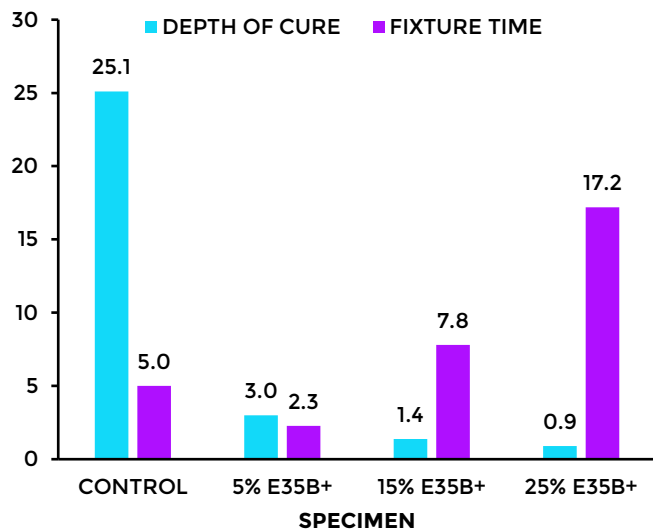
PROPERTIES

UNCURED PROPERTIES	VALUE	UNITS	CONDITIONS
Viscosity	Thixotropic paste	cps	60°C
Appearance	Black paste	**	**
Refractive Index	0	**	25°C
Specific Gravity	1.08	**	20°C

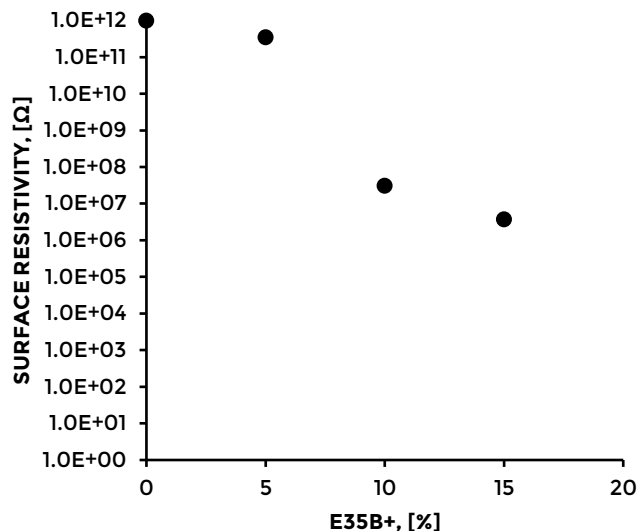
EXAMPLE FORMULATION	CONTROL	T50B	UNITS
BR-952	66.26	51.05	%
BR-371MS	7.00	6.90	%
HEMA	25.68	25.70	%
E35B+	0.00	14.90	%
TPO	1.00	1.00	
OB	0.06	0.00	%
Viscosity at 25°C ¹	400	428	cps

CURED PROPERTIES	CONTROL	15% E35B+	UNITS	STANDARD
Ultimate Tensile Strength	66.2	74.5	MPa	ASTM D882
Tensile Modulus	2661.4	2895.8	MPa	ASTM D882
Elongation	7.0	4.3	%	ASTM D882
Durometer Hardness "D"	87	90	**	**
MEK Double Rub	>200	>200	#	**

DEPTH OF CURE² AND CURE SPEED³



RESISTIVITY PERFORMANCE



¹ Brookfield - CAP 2000+ @ 25°C

² Depth of cure is measured by curing resins with EC-5000, 200 mW/cm² and 11.5 J/cm²

³ Cure speed measured on an HR-2 hybrid rheometer while curing with a 405nm LED at 100mW/cm². Fixture time is considered the time it takes for the material to develop 1MPa of complex modulus.