Technical Data Sheet

HYSOL®

EE0149 EE1067 EE1068 –

HD3561

Electronic Formulated Liquid

Formerly Dexter

Room Temperature Cure, Flame-Out Casting Systems

EE0149/HD3561 Black EE1067/HD3561 Off White EE1068/HD3561 Black

Description

Casting compounds EE0149 and EE1067 (EE1068) using hardener HD3561 have been formulated to meet the needs for flame-out, easily handled casting systems. The cured systems are non-burning or self-extinguishing according to ASTM D 635 and meet the U.L. requirements for 94V-0. EE1068 is the black version of EE1067.

EE0149 with hardener HD3561 is formulated to be a low cost casting system and is listed in Underwriter's Laboratory Component Index. EE0149 meets the requirements of UL 94V-0 in ¼" cross section and 94HB in 0.080" cross-section.

These products are recommended for potting modules. Modules potted in EE1067 with HD3561 have been used over the temperature range of +130ºC to –65ºC (+266ºF to –85ºF).

Typical Uncured Properties	**EE0149**	**EE1067/HD3561 EE1068**	**Test Method**
Color	Black	Off white/ Black	Amber	Visual
Filler content, %	51	40	0	STP 3A
Specific Gravity @ 25ºC (77ºF)	1.56	1.65	1.01	STP 9A
Viscosity @ 25ºC (77ºF)				STP 2A
Brookfield RVF				
Spindle 5, Speed 10 cps	17,000			
Spindle 6, Speed 20 cps		30,000		
Spindle 1, Speed 20, cps, max			20	
Shelf Life @ 25ºC (77ºF), months				
min. from date of shipment	6	6	12	
Solids Content, %	100	100	100	

Typical Cured Properties – Values are not intended for use in preparation of specifications. All measurements are taken at 25ºC (77ºF) unless otherwise noted.

Cured Physical Characteristics

	EE0149 /HD3561	EE1067/ EE1068/Test /HD3561	Method
Color	Black	Off White/ Black	Visual
Coefficient of linear thermal expansion			STP65B
in/in/ºC, (30º to 40ºC) x 10^{-6}	57	70	
(110º to 130ºC) x 10^{-6}	165	225	
Compressive strength, psi	11,800	12,600	STP 92A
Density, gm/cc	1.54	1.59	STP 9A
Filler Content, %	45	34	STP 3A
Flexural strength, psi	10,300	13,500	STP 39A
Flammability	Pass	Pass	UL 94V-0
Linear shrinkage, %	.47	0.10	STP 56C
Moisture absorption			STP 109A
(24 hr immersion), %	0.27	0.8	
Tensile strength, psi	4,970	6,600	STP 38A
Thermal conductivity, @ 30ºC			STP 47C
(cal x cm/sec x cm^2 x ºC) x 10^{-4}	12	8.7	
Hardness, Shore D	90	88	STP 11A
Elongation, %	1.3	1.7	STP 38A
Glass Transition Temperature, ºC	48	50	STP 65B

Cured Electrical Properties

	EE0149 /HD3561	EE1067/ EE1068/Test /HD3561	Method
Dielectric strength @ 10 mil thickness			STP 48D
volts/mil	1285	1330	
Arc Resistance, seconds	134	97	STP 48E

	EE0149/HD3561				EE1067/EE1068/HD3561			
	25°C		85°C		25°C		85°C	
	K	D	K	D	K	D	K	D
100 Hz	4.8	.019	8.0	.233	4.7	.013	8.3	.088
1 kHz	4.7	.013	7.1	.077	4.7	.012	7.7	.048
10 kHz	4.6	.017	6.5	.057	4.6	.018	7.1	.067
Vol. Res.	5 x 10^{15}		2 x 10^{12}		3 x 10^{16}		4 x 10^{12}	
Surf. Res.	4 x 10^{15}		1 x 10^{12}		2 x 10^{16}		1 x 10^{13}	

K = Dielectric constant by STP 53A

D = Dissipation factor by STP 53A
Vol. Res. = Volume resistivity in ohm-cm by STP 31A
Surf. Res. = Surface resistivity in ohms by STP 31A

Handling

	EE0149/HD3561	EE1067/EE1068/ HD3561
Mix ratio, parts by weight	100/13	100/15
Mix Ratio, parts by volume	100/20	100/24.5
Pot life @ 25ºC (77ºF) (200 gram mass), hours	2	1.5
Viscosity @ 25ºC (77ºF) Brookfield RVF, cps	1,800	1,000
Peak Exothermic Temperature (115 gram mass), ºC (ºF)	75 (167)	53 (125)

Cure Schedule

Recommended cure	Three hours at 60ºC (140ºF)
Alternate cure	Two days at 25ºC (77ºF)

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For additional information in the Americas, please contact one of the following locations:

New York	Canada	Brazil
TEL: 716.372.6300	TEL: 905.814.6511	TEL: 011.55.11.4143.7000
FAX: 716.372.6864	FAX: 905.814.5391	FAX: 011.55.11.4143.7100

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