



Formerly Dexter

HYSOL[®] ES0602

Liquid Epoxy Encapsulant

Description

Hysol[®] ES0602 is a liquid two-component, filled epoxy system developed for vacuum impregnation applications. It is especially recommended for paper wound ignition coil applications and provides improved thermal cycle performance.

Typical Uncured Properties

	ES0602		Test Method
	Part A	Part B	
Color	Black	Amber	Visual
Solids Content, %	100	100	STP 7A
Filler Content, %	59	0	
Density @ 25°C, (77°F) gm/cc	1.69	1.11	STP 9A
Viscosity @ 25°C, Brookfield RVF			STP 2A
Spindle 7, Speed 20, cps	51,000		
Spindle 2, Speed 20, cps		1,000	
Shelf Life @ 25°C, (77°F), months from date of manufacture	12	12	

Typical Cured Properties

All measurements taken at 25°C unless otherwise noted.

	ES0602	Test Method
Color	Black	STP 4C
Coefficient of linear thermal expansion		STP 65B
In/in/°C x 10 ⁻⁶ (25° to 40°C)	70	
(110° to 130°C)	160	
Glass Transition (Tg), °C	60	STP 65B
Filler Content, %	43	
Hardness, Shore D	90	STP 11A
Tensile Strength, psi	8,200	STP 38A
Elongation, %	3.6	STP 38A

Cured Electrical Properties**ES0602****Test Method**

Dielectric Strength @ 20 mil thickness, volts/mil

1250

STP 48D

	23°C		125°C	
	K	D	K	D
1 kHz	3.65	.0093	5.50	0.058
10 kHz	3.61	.0075	5.16	0.054
Vol. Res.	9.76 x 10 ¹⁵		1.49 x 10 ¹²	
Surf. Res.	5.27 x 10 ¹⁵		1.25 x 10 ¹²	

K = Dielectric Constant

D = Dissipation Factor

Vol. Res. = Volume Resistivity in ohm-cm

Surf. Res. = Surface Resistivity in ohms

Test Method

STP 53A

STP 53A

STP 30H

STP 30H

Handling

(recommended mix ratio and typical mixed properties)

ES0602**Test Method**

Mix Ratio, parts by weight* Part A/Part B

100/36.3

Mix Ratio, parts by volume* Part A/Part B

100/55.3

Pot Life @ 25°C (77°F) (200 gram mass)

8 hours

STP 10T

Viscosity @ 25°C (77°F)

STP 2A

Spindle 4, Speed 20, cps

6,100

Gel Time @ 100°C (212°F), minutes

60

STP 10N

*Mix ratio of these materials is fixed by their chemistry. Any attempt to increase or decrease the cure rate by adding more or less hardener will result in degraded materials.

-If crystallized during storage, heat to 60°C (140°F) for 2-16 hours (depending on the size of the container) with occasional stirring.

-Filled resins may tend to settle during storage. Thorough mixing is required each time they are used.

Cure Schedule

(recommended for optimum properties)

Recommended Cure

3 hrs @ 93°C plus 1 hour @ 150°C

Alternate Cure

3 hrs @ 120°C

Typical cured properties were determined using the recommended cure schedule. Some difference in properties may occur with the alternate or other cure schedules.

3/2001

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

New York

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Canada

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FAX: 905.814.5391

Brazil

TEL: 011.55.11.4143.7000

FAX: 011.55.11.4143.7100

For a complete listing of worldwide locations and information on related products, please visit our website www.loctite.com/electronics

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Users should review the Material Safety Data Sheet (MSDS) and product label for the material to determine possible health hazards, appropriate engineering controls and precautions to be observed in using the material. Copies of the MSDS and label are available upon request
