



Hysol[®] US5005

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PRODUCT DESCRIPTION

Hysol[®] US5005 polyurethane, is a flexible, polybutadiene based system designed for potting stress sensitive components. It provides excellent hydrolytic stability and maintains outstanding electrical properties up to 150°C.

APPLICATION CHARACTERISTICS

Viscosity @ 25°C, cps	Urethane Resin	80
	Urethane Catalyst	25,000
	Mixed	9,000
Color	Urethane Resin	Brown
	Urethane Catalyst	Black
	Mixed	Black
Density, g/cc	Urethane Resin	1.24
	Urethane Catalyst	1.46
	Mixed	1.44
Mix Ratio, by weight	Resin/Catalyst	10/100
Mix Ratio, by volume	Resin/Catalyst	1/8.4
Working Time, 200 gm mass @ 25°C, minutes		60
Gel Time, 200 gm mass @ 25°C, hours		2-2.5
Cure Cycle, hours	Normal @ 25°C	48
	Alternate @ 66°C	4-5
Shelf Life, in cool dry conditions, from date of manufacture, months		6

TYPICAL CURED PROPERTIES

Hardness, Shore A	83
Glass Transition Temperature (T _g), °C	-54
Thermal Conductivity, watts/m, °C	0.44

TYPICAL ELECTRICAL PROPERTIES

Dielectric Constant @ 25°C	
100 Hz	4.6
1 kHz	4.6
10 kHz	4.4
100 kHz	4.1
Dissipation Factor @ 25°C	
100 Hz	0.03
1 kHz	0.03
10 kHz	0.04
100 kHz	0.04
Dielectric Strength, volts/mil	950
Breakdown Voltage (kV)	18.1
Arc Resistance, seconds	125
Volume Resistivity, ohm-cm, x 10 ¹⁴	1.0
Surface Resistivity, ohms, x 10 ¹⁵	2.6
Coefficient of Thermal Expansion, ln/in/°F, x 10 ⁻⁵	
	4.5

GENERAL INFORMATION

For safe handling information on this product, consult the Material Safety Data Sheet, (MSDS).

This product is not recommended for use in pure oxygen and/or oxygen rich systems and should not be selected as a sealant for chlorine or their strong oxidizing materials.

REGULATORY NOTICE

This product is regulated by the United States Department of Commerce and may not be exported without license from that organization. See Material Safety Data Sheet for details.

STORAGE

Liquid Storage – Liquids should be stored at 23°C or below, in closed containers. If stored below 23°C, the material MUST be allowed to come to room temperature, in the sealed container, to avoid moisture contamination.

DATA RANGES

The data contained herein may be reported as a typical value and/or range values based on actual test data and are verified on a periodic basis.

Note

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Loctite Electronics

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