TECHNICAL DATA SHEET

U 6942 / U001B **June 2013**

ELECTRICAL POLYURETHANE RESIN

Casting resin for mechanical and numerous electrical applications especially for low or medium voltage when requiring an extinguishing characteristic.

Resin	**U 6942**	100 parts by volume	100 parts by volume
Hardener	**U 001 B**	16 parts by weight	20 parts by weight

1 – COMPONENTS DESCRIPTION:

1-1 Resin U 6942

Modified aliphatic polyol based resin

density (25°C)	ISO 1675/1985		1,57
viscosity (25°C)	BROOKFIELD LVT	mPa.s	7000

1-2 Hardener U 001 B

MDI based hardener

density (25°C)	ISO 1675 :1985		1,22
viscosity (25°C)	BROOKFIELD LVT	mPa.s	20

Storage conditions:
Self life is 12months for the resin and the hardener in a dry place and in their original unopened containers at a temperature between 15 and 25°C.
Any open can must be tightly closed under dry inert gas (dry air, nitrogen…).

2 –CURING :

Gel time, at 25 °C on 200g mixing
White resin: 60min
Blanck resin: 30min

Mixing density :1.55 (ISO 2781 : 1996)

Initial viscosity of mixing (25 °C, BROOKFIELD LVT) : 1100mPa.s

Curing time, at 25°C on 200g mixing : 12 to 24h

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3 –FINAL PROPERTIES :

Properties	**Standard**	**Unit**	**Value**
Tensile strength	ISO 37 : 2004	MPa	7
Elongation at break	ISO 37 : 2004	%	110
Coefficient of thermal expansion	ISO 11359 :1999	$10^{-6}K^{-1}$	45 /140
Hardness	ISO 868 : 2003	D1/D15	46/ 36
Glass transition temperature	ISO 11359 : 2002	°C	-5
Dielectric strength (50 Hz - 1 mm)	CEI 60243-1 E2 :1998	kV/mm	25
Dielectric constant ε (100Hz)	CEI 60250 : 1969		7,7
Dissipation factor tg δ (100Hz)	CEI 60250 : 1969		0,12
Volume resistivity (1000V)	CEI 60093 E2 :1980	Ω.cm	2.10^{14}
Thermal conductivity	EN 993-15	W/m°K	0,7
Water absorption(23°C -24h)	ISO 62 :1999		0,3

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