

## ELECTRICAL POLYURETHANE RESIN

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

<b>Resin</b>	<b>U69-42 A</b>	100 parts by weight	100 parts by volume
<b>Hardener</b>	<b>U69-42 B</b>	16 parts by weight	20 parts by volume

### 1 – COMPONENTS DESCRIPTION:

#### 1-1 Resin U69-42 A

Modified aliphatic polyol based resin

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

#### 1-2 Hardener U69-42 B

MDI based hardener

<b>density (25°C)</b>	ISO 1675 :1985		1,22
<b>viscosity (25°C)</b>	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

### 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 <sup>-6</sup> K <sup>-1</sup>	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 $\epsilon$ (100Hz)	CEI 60250 : 1969		7,7
Dissipation factor tg $\delta$ (100Hz)	CEI 60250 : 1969		0,12
Volume resistivity (1000V)	CEI 60093 E2 :1980	$\Omega$ .cm	2.10 <sup>14</sup>
Thermal conductivity	EN 993-15	W/m°K	0,7
Water absorption(23°C -24h)	ISO 62 :1999		0,3

*The information contained in this technical data sheet result from research and tests conducted in our Laboratories under precise conditions. It is the responsibility of the user to determine the suitability of ABchimie products, under their own conditions before commencing with the proposed application. ABchimie guarantee the conformity of their products with their specifications but cannot guarantee the compatibility of a product with any particular application. ABchimie disclaim all responsibility for damage from any incident which results from the use of these products. The responsibility of ABchimie is strictly limited to reimbursement or replacement of products which do not comply with the published.*

*Toutes ces informations sont données en toute bonne foi mais sans garantie. Chaque application étant différente, il est vivement conseillé d'effectuer des tests préalables. Les spécifications concernant les propriétés sont données à titre indicatif et non comme étant spécifiques.*