

## Electrical polyurethane resin

### PRODUCT DESCRIPTION

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

U69-42 part A and part B are compliant with REACH and RoHS regulations. If you want a certificate, please contact us ([info@abchimie.com](mailto:info@abchimie.com)).

### 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

### CURING :

Gel time, at 25 °C on 200g mixing

U69-42	Black resin:	30min
U69-42 W	White resin:	50min

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

## **PROPERTIES on cured resin:**

<i>Properties</i>	<i>Standard</i>	<i>Unit</i>	<i>Value</i>
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

## **STORAGE AND SHELF LIFE:**

Storage temperature: 5 to 30°C

A temporary lower temperature during few days (transport) doesn't distort varnish properties.

Shelf life: 12 months after the date of manufacturing

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...).

*All information is given in good faith but without warranty. Properties are given as a guide only and should not be taken as a specification. ABchimie cannot be held responsible for the performance of its products within any application determined by the customer, who must satisfy themselves as to the suitability of the product.*