



# Isepur<sup>®</sup> 94.2

## 1. description



Two component polyurethane based flexible system, specifically formulated with non-abrasive fillers, with good final characteristics electrical and mechanical.  
Approved system for UL 94 V-0 (File E361218).  
System complies with RoHS (European Directive 2002/95/CE).

## 2. composition

Component A: polyether polyol, filled and pigmented, without halogens.  
component B: polyisocyanate.

## 3. applications



**Encapsulation of electric and electronic component.**

## 4. use

### 4.1 mixing ratio

**A : B = 100 : 16 by weight**

⇒ **ABSOLUTELY AVOID THE VARIATION OF THIS RATIO**

### 4.2 mixing

Mix carefully with a suitable equipment until perfect homogenisation.

### 4.3 curing temperature

Minimum : + 15°C.

⚠ *At lower temperature the polymerization of the product does not occur in a proper way.*

### 4.4 tools cleaning

With acetone or specific solvents for polyurethane products. Hardened material must be removed mechanically

### 4.5 packages

Component A : drum

**Kg 300**

Component B : drum

**Kg 250**

Nb – Packages of different capacity can be supplied on demand.

⇒ *The components must be mixed according to the above mentioned mixing ratio.*

### 4.6 storage

The product, stored in sealed original containers in normal conditions between 15÷35 °C, away from source of heat, umidity and sun light, is useable for 8 months since production date.

Component B is sensitive to moisture; avoid the protract contact with air.

#### **Important advice for processing.**

Because mineral fillers can undergo some kind of sedimentation, depending also on time and temperature storage, before use, the component A must be carefully stirred with a suitable equipment.



#### 4.7 dilution

Do not dilute the product with solvents, water or other diluents.

The addition of color pastes or other additives changes the product properties, therefore their use is not suggested unless previously authorized.

#### 4.8 application

- 📖 Mix the components just before use. Add the required amount of component B to component A and mix carefully. Apply an under vacuum degas to the obtained mixture.
- 📖 It is suggested to pre-heat the items to be encapsulated before casting, checking that the active parts are free from moisture.
- 📖 Plan an heat post-curing ( for instance : 6 ÷ 12 hours at 60 - 80 °C ) of the casted items, which improves the final properties
- 📖 In case of use of an automatic equipment with a dispenser , it' s necessary to check daily that the ratio in weight of the components has been kept.

☞ **Caution : preliminary tests are suggested in order to check if the product is suitable for the intended use.**

### 5. properties

#### Isepur<sup>®</sup> 94.2 component A

Characteristics	Rule	Unit	Value
specific weight at 23 ± 2°C	ASTM D 1475/98	g/ml	1,47 ÷ 1,53
viscosity at 23 ± 2°C	ASTM D 1824/95	mPa.s	4.000 ÷ 6.000
aspect	-	-	paste
colour	-	-	various

#### Isepur<sup>®</sup> 94.2 component B

Characteristics	Rule	Unit	Value
specific weight at 23 ± 2°C	ASTM D 1475/98	g/ml	1,20 ± 0.05
viscosity at 23 ± 2°C	ASTM D 1824/95	mPa.s	150 ± 50
aspect	-	-	liquid
colour	-	-	brown

#### Mixture of components:

Characteristics	Rule	Unit	Value
specific weight at 23 ± 2°C	ASTM D 1475/60	g/ml	1,45 ± 0.05
viscosity at 23 ± 2°C	ASTM D 1824/95	mPa.s	2.500 ÷ 3.500
gel time at 23 ± 2°C (100 gr A+B)	DIN 16945	min	30 ÷ 60

#### Mixture of components: final characteristics ( post curing 24 h a r.t. + 6 ore a 80°C.)

Characteristics	Rule	Unit	Value
Tensile strenght	ISO/R 527	MPa	3 ÷ 5
Elastic modulus in tension	ISO/R 527	MPa	20 ÷ 30
Elongation at break	ISO/R 527	%	25 ÷ 35
Hardness	DIN 53505	Shore D	45 ÷ 55
Hardness	DIN 53505	Shore A	80 ÷ 90
Flame resistance	UL94	-	V0 / 6,4 mm
Water absorption	DIN 53495		
10 day to 23° C		% by weight	0,10 ÷ 0,15
30 min to 100° C		% by weight	0,20 ÷ 0,30
Volume resistivity at 25 ± 2 °C, 50 Hz	IEC 60093	Ω x cm	10 <sup>14</sup>
Dielectric constant ε <sub>r</sub> at 25 ± 2 °C, 50 Hz	IEC 60250	-	5 ÷ 6
Loss factor tg δ at 25 ± 2 °C, 50 Hz	IEC 60250	-	0,12 ÷ 0,13
Tracking resistivity	IEC 60112	grade	CTI > 600



## 6. *igiene*

When processing polyurethane products, regulations concerning hygiene at work, storage, and environmental protection must be observed.

Wear gloves, safety goggles and appropriate clothing. For waste disposal, comply with applicable laws; do not dispose into drainage. For more detailed information, see our safety data sheet.

*All the information herein is provided to the best of our knowledge.*

*The product mentioned is for professional use only: the indication of use supplied by the manufacturer does not release the buyer/user from testing the product and checking that the results actually obtained comply with those required.*

*Furthermore, the manufacturer accepts no liability, direct or indirect, deriving from or in any case related to the incorrect and/or improper use of the products and/or in any case deriving from the use of the products in conflict with the technical specifications described in the technical data sheets.*

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*This version deletes and replaces all previous versions*