

RA-POX 0724

Two component epoxy-system, flexible, suitable for encapsulation of electric and electronic component, with gelation and curing at high temperature.

Typical casting compound:

Resin	RA-POX 0724 CA	100 Pbw
Hardener	RA-POX 0724 CB	40 Pbw

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Properties:

**Excellent elastomeric properties,
excellent mechanic stress resistance and good dielectric power.**

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Epoxy and Polyurethane Systems Industry

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1. Component information.

RA-POX 0724 CA

Modified and prefilled epoxy resin derived from bisphenol A and low-abrasive mineral fillers.

PROPERTY	STANDARD	UNITS	VALUE
specific weight at 23± 2°C	ASTM D 1475/98	g/ml	1,72 ÷ 1,78
viscosity at 23 ± 2°C	ASTM D 1824/95	mPa·s	60.000 ÷ 80.000
Aspect	-	-	Paste
Colour	-	-	black

Storage in sealed original containers, away from light at 18÷25 °C, for 6 months.

The product is sensitive to humidity. Avoid the prolonged contact with the air .

RA-POX 0724 CB

Modified and preaccelerated liquid anhydride hardener.

PROPERTY	STANDARD	UNITS	VALUE
specific weight at 23 ± 2°C	ASTM D 1475/98	g/ml	1,05 ÷ 1,15
viscosity at 23 ± 2°C	ASTM D 1824/95	mPa·s	10.000 ± 2.000
Aspect	-	-	liquid
Colour	-	-	amber

Storage in sealed original containers, away from light at 18÷25 °C, for 6 months.

The product is sensitive to humidity. Avoid the prolonged contact with the air .

2. Processing

The resin is homogenized under vacuum (from 2 to 8 mbar) in the desired quantity and at temperature of 50-60 ° C.

The hardener is kept at room temperature or slightly heated, under vacuum. The materials after the treatment are dosed in the quantities described and mixed manually or with an automatic mixer (kinetic or static), casting under vacuum is suggested.

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, separately, with a suitable equipment.

3. **Gelation Time**

The gelation time is measured by a Gel Norm device on 20 g of mixture.

PROPERTY	STANDARD	UNITS	VALUE
gel time at 60 ±2°C (20 gr A+B)	Internal Method IS24**	h	4 ÷ 6

**Internal Method available on request.

4. Curing

Curing at $100 \div 120$ °C for $4 \div 6$ ore.

5. Remarks

- After the curing it's necessary to carry out measurement of the glass transition temperature and hardness (shore A) to verify if the cross-linking has come to completion.
- It's recommended to do preliminary tests in order to verify if the product is suitable for the expected purpose

6. Electric and Dielectric properties.

Measurements were taken on normalized samples; curing 4 h at 100°C °C.

PROPERTY	STANDARD	UNITS	VALUE
Electric strenght at 25 ± 2 °C 50 Hz thichness:2 mm	IEC 60243-1	KV/mm	$18 \div 20$
Volume resistivity at 25 ± 2 °C 50 Hz	IEC 60093	$\Omega \times \text{cm}$	10^{12}
Dielectric Costant ϵ_r at 25 ± 2 °C 50 Hz	IEC 60250	-	$4 \div 6$
Loss factor $\text{tg } \delta$ at 25 ± 2 °C 50 Hz	IEC 60250	%	$2 \div 4$
Tracking resistance	IEC 60112	Grade	CTI > 600

7. Mechanical and Physical properties.

Measurements were taken on normalized samples; curing 4 h at 100°C °C.

PROPERTY	STANDARD	UNITS	VALUE
Glass transition temperature	ASTM D 3418	°C	$0 \div 15$
Elongation at break in tension	ISO/R 527	%	$50 \div 70$
Hardness	DIN 53505	Shore A	$65 \div 85$
Decomposition temperature	VSM 77113	°C	> 300
Density	ISO/R 1183	g/ml	$1,60 \pm 0,05$
Water absorption (24 h at 25 ± 2 °C)	DIN 53495	% in weight	$0,50 \div 0,70$

8. Occupational Hygiene

When processing epoxy resins and their hardeners and accelerators, regulations concerning hygiene at work, storage, and environmental protection must be observed.

Contact with skin and breathing in the product vapours should be avoided at all times.

The use of glasses and gloves is recommended. For more information, please see the products' safety data sheets.

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

The product mentioned are 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.

<i>revision</i>	<i>Date</i>	<i>Description</i>	<i>Edited</i>
01/01	October, 25, 2018	RA-POX 0724 technical datasheet	Bertaglia Antonella



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