



EPAMINE PC11

curing agent

EPAMINE PC11 is a curing agent for epoxy systems, based on cycloaliphatic amine, with a very low color.

It is normally used in self levelling flooring, mortars and general coatings, for ambient temperature curing of liquid epoxy resins.

Main characteristics of epoxy system based on EPAMINE PC11 are :

- Very low color;
- Good yellowing resistance;
- High chemical resistances;
- Low viscosity;
- Good esthetical properties (no amine blush).

EPAMINE PC11 is allowed for food contact.

CHEMICAL – PHYSICAL PROPERTIES

Appearance :	clear
Active content :	100 %
Color Gardner :	2 max
	(Typical value : << 1)
Brookfield viscosity (mPa.s a 25°C):	350-650
	(Typical value : 500)
Amine value (mg KOH /g):	260 - 300
	(Typical value : 290)
Average Hydrogen Equivalent :	114
PHR in combination with liquid epoxy resin (EEW= 190) :	 60
Pot life 150 g at 25°C with liquid epoxy resin (EEW =190) :	 50 : 60'

Analytical Methods can be supplied under request.

SEDE OPERATIVA:

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TYPICAL PERFORMANCE

Use level (pHR, EEW=190):	60
Gel time (150g, 25°C):	50 min
Thin film set time, 25°C:	7 hr
Full curing time, 25°C:	4 : 7 days
Peak exotherm (100g, 25°C):	90°C

CHEMICAL RESISTANCE

EPAMINE PC11 was mixed with the following epoxy resins:

- EBL 70, bisphenol-A based epoxy resin, 100%
- EBL 74, bisphenol-A based epoxy resin modified with C12-C14 reactive diluent
- EBL 96, bisphenol-F based epoxy resin, 100%

The following table shows the % weight gain or loss, after 21 days of immersion in various chemical, at 25°C.

	EBL 70	EBL 74	EBL 96
Distilled water	0.84	0.81	0.88
Ethanol 15%	1.02	0.98	0.98
Ethanol 95%	4.98	7.22	5.02
Xylene	0.54	6.20	0.45
MIBK	2.66	3.21	2.70
Butyl Acetate	5.38	20.88	2.65
Gasoline	0.11	0.20	0.18
Ammoniac 10%	0.97	0.67	0.89
Sulphuric acid 10%	1.01	1.42	1.36
Sulphuric acid 50%	0.50	0.41	0.45
Nitric acid 10%	1.41	1.03	1.36
Phosphoric acid 10%	1.76	2.28	2.15
Acetic acid 10%	2.21	1.23	1.59
Lactic acid 10%	1.44	2.31	1.29
Formaldehyde 10%	0.78	0.72	0.75

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MECHANICAL RESISTANCE

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	Data
COMPRESSIVE (UNI 4279)	
Compressive strength, N / mm ²	70
Compressive modulus, N / mm ²	2000
FLEXURAL (UNI 7219)	
Flexural strength, N / mm ²	59
Flexural modulus, N / mm ²	2500
TRACTION (ASTM D 638)	
Tensile strength, N / mm ²	47
Elongation at break, %	1,9
HDT °C (UNI 4281)	59
PHR	60

HANDLING AND STORAGE

EPAMINE curing agent may absorb moisture and CO₂ if drums are not well closed.

EPAMINE curing agent should be stocked in dry place at a temperature between 5 and 35°C; in this condition, self life is at least 1 year, from the date of manufacture, if in the original sealed container.

Lower temperature could bring increase in viscosity (reversible) and haziness.

EPAMINE curing agents and epoxy resin must be mixed just before application; avoid contact with eyes and skin, do not inhale vapours, wear protective clothes, glasses and gloves. Use only with adequate ventilation.

For further information, refer to SAFETY DATA SHEET.

What is indicate in this data sheet comes from our laboratory tests and it is offered in good faith for the benefits of our customers. The Company, however, cannot assume any liability or risk in the use of its chemicals products since the conditions of the use are beyond our control. Statements concerning the possible use of our products are not intended as recommendations to use our products in the infringement of any patent.

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