

Hardener H-11

FEATURES

- Very low colour
- Good yellowing resistance
- Very good chemical resistance
- Easy pigmentable

COMPOSITION

- Cycloaliphatic amine based adduct



Hardener H11 is a modified cycloaliphatic amine, mainly used as a hardener of liquid epoxy resins, characterized by very low color and high resistance to yellowing.

APPLICATIONS

- Self-leveling floor coverings, synthetic mortars.

TYPICAL PROPERTIES

Specifications writers: These values are not intended for use in preparing specifications. Please contact your local sales representative prior to writing specifications on this product.

Properties	Unit	Value
Aspect	Visual	Liquid colorless
Active substance	%	100
Color	Gardner	2 max
Viscosity Brookfield at 23°C	mPa.s	360
Density at 23°C	g/cm ³	1.07
Amine value	mg KOH/g	290
Equivalent weight {H}		114
Curing with standard Bisfenolo-A epoxy resin (DGEBA, EEW=190)		
Mix ratio (resin : hardener)	pbw	60
Gel time at 23°C (150g)	Minutes	50
Exothermic peak (100g at 23°C)	°C	90
Tg (DSC)	°C	60
Full cure at 25°C	days	4 - 7
Hardness	Shore D	83
Tensile strength	MPa	55
Elongation at break	%	9.9
Flexural modulus	MPa	2360
Flexural strength	MPa	83
Chemical resistance (change in weight after 20 days in immersion at 25°C)		
Deionized water	%	0,8
Ethanol 15%	%	1,0
Ethanol 95%	%	5,0
Xylene	%	0,5
Butyl acetate	%	5,5
Diesel fuel	%	0,1
Ammonia 10%	%	1,0
Sulfuric acid 10%	%	1,0
Nitric acid 10%	%	1,5
Phosphoric acid 10%	%	1,8
Acetic acid 10%	%	2,2
Lactic acid 10%	%	1,5

MIXING

Weigh resin and hardener in the indicated ratio and mix until a homogeneous compound is obtained.

Warning! Epoxy resins and amines can generate a highly exothermic, uncontrolled reaction, with decomposition above 250°C. Prepare limited quantities of material and proceed with application.

STOICHIOMETRY

Calculation of the grams of hardener required for 100g of resin:

$$\text{g of hardener} = \frac{\text{AHEW}}{\text{EEW}} \times 100$$

AHEW= amino equivalent

EEW= epoxy equivalent

POTLIFE E GELTIME

The Potlife or time of use of the mixture is normally the time required for an increase equal to twice the initial viscosity. Both Pot-life and Gel-time depend on mass and temperature: the greater the mass, the faster the reaction will be. The higher the temperature, the faster the reaction.

CURING

The system cures at room temperature.

HANDLING PRECAUTIONS

The information for a correct and safe handling of the products are contained in the safety data sheet. Consult the safety data sheets before use for complete information on the risks for health and environment and for suitable protective devices to be adopted. Share the safety data sheets with all the staff involved in the use of the products.

PACKAGING

The product is supplied in 200kg drums and 1000kg containers. For other packaging please contact our sales department.

USABLE LIFE - STORAGE

Store in the original unopened containers at a temperature between +10°C and +35°C. Be sure to close containers after use. Lower temperatures can lead to significant increases in viscosity (reversible) and opalescence. If the containers are not tightly closed, the product can absorb humidity and carbon dioxide from the air; this can generate bubbles during the hardening phase. The product stored in suitable conditions has a shelf life of 24 months from the date of manufacture.

LIMITATIONS

This product is neither tested nor represented as suitable for food contact, skin contact or medical uses.

LIMITED WARRANTY

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