

## Epilox<sup>®</sup> - Hardener M 1209 (Epilox<sup>®</sup> - Härter M 1209)

### Description

Epilox<sup>®</sup> - Hardener M 1209 is a waterborne curing agent supplied at 70 % solids in water. It is a liquid that can be used with different types of liquid epoxy resins to form waterborne two component epoxy emulsions. The product is VOC-free according to European directive 2004/42/EC and contains no alkylphenols.

### Application

Epilox<sup>®</sup> - Hardener M 1209 serves as emulsifying curing agent in formulations with liquid epoxy resins for thick layer self leveling floorings especially on green concrete or surfaces with expected high water or water vapor migration.

### Advantages

- excellent emulsifying properties
- VOC-free
- visible end of pot life
- fast drying time
- good hardening development
- low HEW
- low shrinkage
- fast hardening
- easy clean-up

Data	
Appearance	orange to brown liquid
Viscosity at 25 °C [mPas] (DIN 53015)	8000 – 16000
HEW (theoretical)	approx. 165
Amine Number [mg KOH/g] (DIN 16945)	250 – 320
Density at 20 °C [g/cm <sup>3</sup> ] (DIN 53217 T.4)	1.10 ± 0.02
Colour Number (Gardner) (DIN ISO 4630)	< 12
Nonvolatiles [%] (by weight)	69 – 71

### Packing/Storage/Transport

Epilox<sup>®</sup> - Hardener M 1209 is supplied in drums or containers. The product should be stored in closed containers at temperatures between +10 °C and +30 °C. Under these storage conditions Epilox<sup>®</sup> - Hardener M 1209 has a storage time of 12 months.

## Typical Handling Properties

	with T 19-38/700	with T 19-43/700
Type	C12-C14 glycidether modified Bis A/F resin	p-t-butylphenol glycidether modified Bis A resin
Mixing ratio (resin : M 1209) pbw : pbw	100 : 87	100 : 83
Pot life @ 23 °C [min]	90	100
Pendulum Hardness (König) [counts] DIN 53157		
1 d	53	86
2 d	95	127
7 d	134	158

## Starting Formulation for a self leveling floor coating

Component A			parts [g]
T 19-43/700	resin	LEUNA-Harze	16.75
<b>Component B</b>			
M 1209	hardener	LEUNA-Harze	13.9
Water	diluent	–	9.1
Quartz 0.1 – 0.3 mm	filler	Röhrig Granit	36.5
Barium sulphate	filler	Blance fix micro	36
Titanium dioxide	pigment	Kronos 2300	3.8
Byk 012	additive	Byk	0.7
			116.75

For optimum results we recommend applying the system at < 80 % relative humidity and in a temperature range between 10 – 30 °C. After application the coating is distributed by the help of a notched spreader or smoothing trowel and, if necessary, worked over with a spiked roller, to improve degassing and leveling.

Binder: 22 %  
 Filler: 62.5 %  
 Water: 11 %  
 PVC: 66.6 %

## Formulation properties

	with T 19-38/700	with T 19-43/700
Type	C12-C14 glycidether modified Bis A/F resin	<i>p</i> -t-butylphenol glycidether modified Bis A resin
Mixing ratio (resin : M 1209) pbw : pbw	100 : 87	100 : 83
Shrinkage after 7 days	12 mm (1.2 %)	10 mm (1 %)
Deformation	no	no
Shore D Hardness		
1 d	35	36
2 d	47	52
7 d	61	67

The shrinkage was measured in a metal trough of 100 cm length, 5 cm width and 0.5 cm height. Component A and B of the above mentioned formulation were mixed for at least 3 minutes to complete homogeneity and poured into the trough at approx. 3 mm high. After 24 h the trough was removed and the shrinkage, as well as possible deformation were measured and observed, respectively.

## Safety Requirements

Please refer to the valid Material Safety Data Sheet as well as to the legal and recommended industrial hygiene regulations.

The information given in these data is based on the testing methods established by LEUNA-Harze GmbH and on the knowledge of the characteristics of Epilox® - products and is given in good faith. No liability is accepted by LEUNA-Harze GmbH for any system or application in which Epilox® - products are utilized.