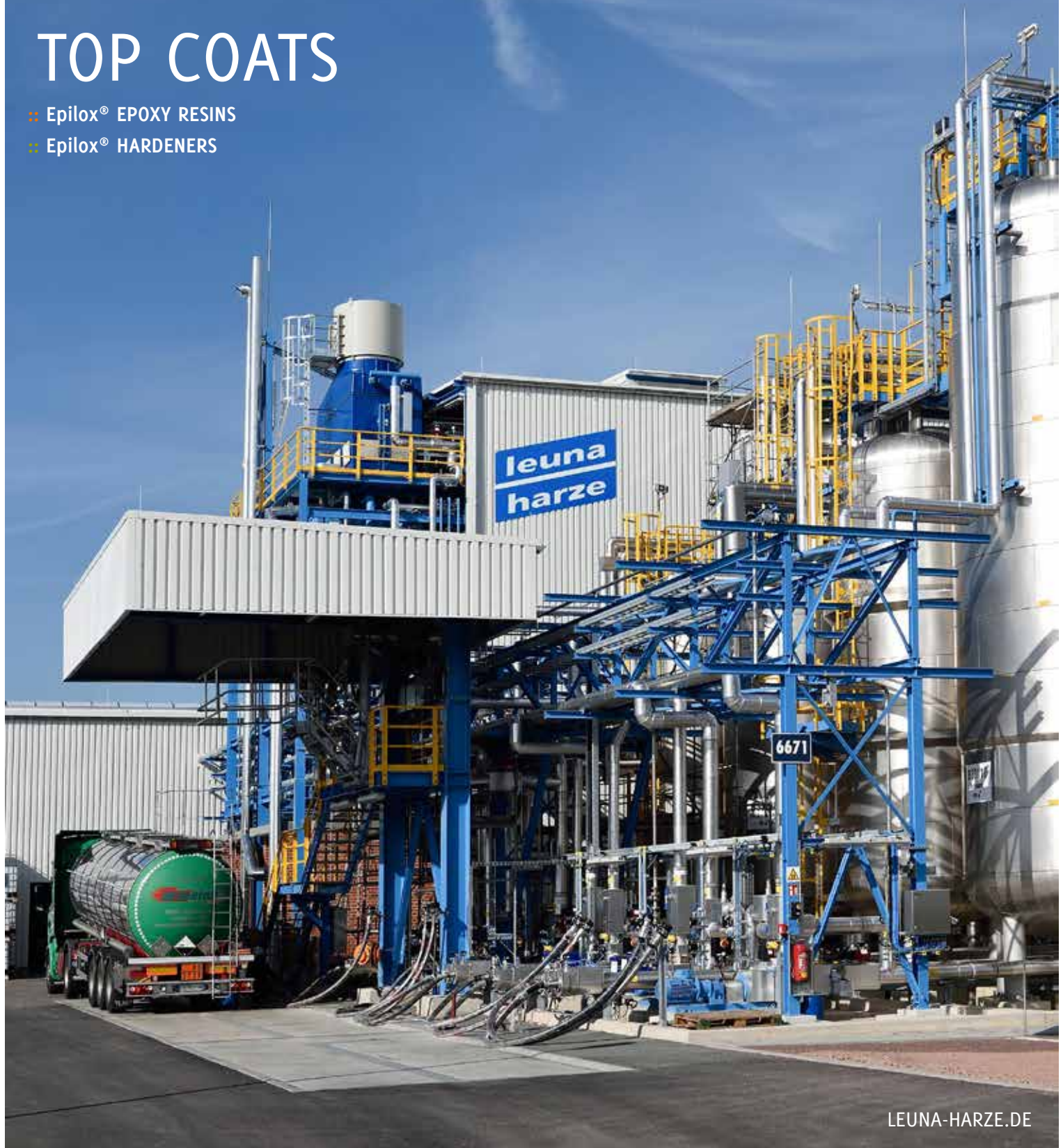


EPILOX® – HIGH-PERFORMANCE SURFACES:: TOP COATS

Epilox® EPOXY RESINS

Epilox® HARDENERS



Components	EPILOX®-SYSTEM		MIXING RATIO (PARTS BY WEIGHT)		NH-EQUIVALENT WEIGHT (g)	VISCOSITY @25 °C (mPa·s)		MIXING VISCOSITY @25 °C (mPa·s)	POT LIFE (min. up to 40 °C) 100 g	NOTE
	A	B	A	B	A	A	B	A B	A B	
	T 19-38/700	M 1128	100	50	93	700	315	580	15	Universal nonylphenol-free curing agent with excellent surfaces. Good early water resistance.
	T 19-38/700	M 1164	100	50	93	700	230	400	40	Universal nonylphenol-free curing agent with excellent surfaces and longer pot life. Good early water resistance.
Main focus: Reactivity	T 19-38/700	M 1178 + M 1128 (1:1)	100	45	83	700	300	550	11	Nonylphenol-free curing agent with increased reactivity for topcoats. Good early water resistance and excellent surfaces.
Main focus: Viscosity	T 19-38/700	M 1142	100	50	85	700	60	320	25	Very low-viscosity and nonylphenol-free system with excellent UV stability and excellent surfaces.

WHAT INFLUENCES THE COATING SURFACE

In addition to the binder, which makes a significant contribution to an optimal surface, is the interaction of individual components in a formulation, and the correct processing, which is very crucial for a flawless surface.

Different types of film breakdown can occur. The most important are given below:

- :: Blooming
- :: Tacky surfaces
- :: Cellular structures (Bénard cells)
- :: Orange peel effect
- :: unpunctured bubbles
- :: Pinholes

ADDITIVES FOR A GOOD SURFACE

DEAERATION

The effect of deaeration is achieved by a targeted and controlled incompatibility with the binder.

- Examples:
- :: Byk-A 530
 - :: Byk-A 535
 - :: Byk-021 (aqueous systems)
 - :: Byk-022 (aqueous systems)

NETWORK AND DISPERSION TOOL

The effect of these additives is based on their ability to lower the surface tension of the liquid, in this case, the epoxy resin.

- Example:
- :: Anti Terra U

LEVELLING AGENTS

Typical problems are Bénard cells, or, an orange peel effect. For epoxy resin systems effective flow additives are, for example, Byk-361 N and others.

APPLICATIONS WITH EPILOX® SYSTEMS

SYSTEM WITH HIGH CHEMICAL RESISTANCE

- Epilox® M 1049
- Epilox® hardener H 10-69

This relatively low viscosity, nonylphenol-free resin/hardener combination shows very good chemical resistance. It has resistance to up to 20% nitric acid and 30% hydrochloric acid.

SYSTEM FOR HIGHLY FILLED, TROWELABLE MORTARS

- Epilox® T 19-38/700
- Epilox® hardener M 1164

Easily processable well-hardening mortars can be formulated with this resin/hardener system. Epilox® hardener M 1164 contains no nonylphenol, is insensitive to carbamation and shows good UV stability.

PRIMER FOR CERAMIC AND OLD EP-COATINGS

- Epilox® T 19-38/700
- Epilox® hardener H 12-01

This aqueous epoxy resin system shows very good adhesion to old epoxy resin coatings and on glazed surfaces, such as ceramic linings.



Please contact us for more information on the reported system.

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EPILOX® SYSTEMS:: STARTING POINT FORMULATIONS

SELF-LEVELLING COATING

Epilox® T 19-38/1000 / Epilox® hardener M 1164

COMPONENT A	SUPPLIER	PARTS BY WEIGHT
1 Epilox® T 19-38/1000	LEUNA-Harze GmbH	39.00
2 BYK 410	Byk	0.40
3 Pigment		5.00
4 Quartz powder F 300	Quarzwerte	50.00
5 Epilox® T 19-38/1000	LEUNA-Harze GmbH	2.50
6 BYK A 530	Byk	1.00
7 Tegoglide B 1484	Evonik	0.10
8 Benzyl alcohol		1.90
9 Cab-O-Sil EH 5	Cabot	0.50

COMPONENT B	SUPPLIER	PARTS BY WEIGHT
1 Epilox® hardener M 1164	LEUNA-Harze GmbH	20.00

Production of component A:

Mix ingredients 1-3

Stir and disperse ingredient 4

Add ingredients 5-9, allow to disperse and mix homogeneously.

The coating material can be blended in a 2: 1 ratio with quartz sand of 0.08 - 0.25 mm granulation.

SYSTEM PROPERTIES FOR SELF-LEVELLING COATING

PARAMETER	UNIT	VALUE
Binder content	%	approx. 60
Solids content	%	98
Additive portion	%	1.5
Comp. A density	g/cm ³	approx. 1.53
Comp. B density	g/cm ³	approx. 1.04
Coating density	g/cm ³	approx. 1.50

MECHANICAL PROPERTIES

PARAMETER	UNIT	VALUE
Compressive strength (DIN 1164)	N/mm ²	approx. 60
Bending tensile (DIN 1164)	N/mm ²	approx. 30
Shore D hardness (DIN 53455)		approx. 80

THIXOTROPIC ROLLER APPLIED COATING

Epilox® T 19-38/1000 / Epilox® hardener M 1164

COMPONENT A	SUPPLIER	PARTS BY WEIGHT
1 Epilox® T 19-38/1000	LEUNA-Harze GmbH	27.00
2 Anti-Terra U 100	Byk	0.50
3 BYK A 500	Byk	0.25
4 BYK A 320	Byk	0.25
5 Cab-O-Sil TS 720	Cabot	0.70
6 Pigment		10.00
7 Epilox® T 19-38/1000	LEUNA-Harze GmbH	10.00
8 Quartz powder F 300	Quarzwerte	17.80
9 Plastorit O	Imerys Talc	
10 Epilox® T 19-38/1000	LEUNA-Harze GmbH	10.00

COMPONENT B	SUPPLIER	PARTS BY WEIGHT
1 Epilox® hardener M 1164	LEUNA-Harze GmbH	25.00

Production of component A:

Mix ingredients 1-4

Stir and disperse ingredient 5-6

Stir and disperse ingredient 7-9

Add ingredient 10, allow to disperse and mix homogeneously

SYSTEM PROPERTIES FOR THIXOTROPIC ROLL COATING

PARAMETER	UNIT	VALUE
Binder content	%	approx. 70
Solids content	%	99.6
Additive portion	%	1.7

SHORE D HARDNESS DEVELOPMENT (23 °C/50% RELATIVE HUMIDITY)*

PARAMETER	VALUE
24 hour	Shore D approx. 70
48 hour	Shore D approx. 75
72 hour	Shore D approx. 80

SHORE D HARDNESS DEVELOPMENT (13 °C/80 % RELATIVE HUMIDITY)*

PARAMETER	VALUE
24 hour	Shore D approx. 30
48 hour	Shore D approx. 75

*measurement at curing temperature