EPILOX® – PERFORMANCE WITH SYSTEMS ::

BINDERS FOR PRIMERS

:: Epilox® EPOXY RESINS
:: Epilox® HARDENERS

LEUNA-HARZE.DE

PRODUCT OVERVIEW

	EPILOX®-SYSTEM		MIXING RATIO (PARTS BY WEIGHT)		NH-EQUIVALENT WEIGHT (g)	VISCOSITY @25 °C (mPa·s)		MIX VISCOSITY @25 °C (mPa·s)	POT LIFE (min. up to 40 °C) 100 g	NOTE
Components	A	B	A	B	A	A	B	A | B	A | B	
	T 19-38/700	M 1164	100	50	93	700	230	400	40	Universally applicable and free of nonylphenol. Good full curing even at 10 °C despite longer pot life.
	T 19-38/700	M 1131-1	100	50	94	700	180	410	25	Nonylphenol-free. Good full curing at lower temperatures.
Main focus: Viscosity	T 19-38/500	H 10-32	100	40	85	500	18	150	45	Very low-viscosity and nonylphenol-free primer.
Main focus: Full curing	T 19-38/700	M 1178	100	40	75	700	200	600	10	Emission-free and nonylphenol-free, fast priming. Epilox® hardener M 1178 is also suitable for topcoats.
Main focus: Difficult substrates and/or damp substrates	T 19-38/700	H 14-50	100	60	115	700	1000	750	60	Nonylphenol-free as well as low-viscosity primer with excellent adhesion to a wide variety of substrates.

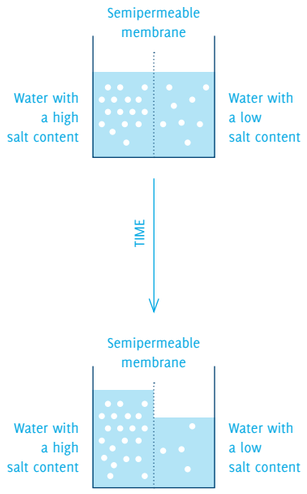
REASON FOR PRIMING

The most important reason for priming is pore closure in the substrate and adhesion for subsequent coating. For this reason, priming is key for the success of the overall coating system. However, this can only be ensured if a suitable primer is applied in a sufficient quantity. At least 300 g/m² are ideal. It is important to remember that the quantity to be applied is strongly dependent on the substrate properties.

Dust adhesion, strengthening of the substrate and – in special cases – the prevention of osmotic blisters are further areas of application that can be addressed with a correct selection of primer.

Epoxy resin primers should be coated no later than 48 hours after application. It should be noted that this figure is only a reference value and the ambient temperature and the relative humidity play a crucial role. The coating period can be significantly extended through the standard practice of sprinkling with quartz sand. Sprinkling with quartz sand allows the subsequent coating to mechanically mesh with the primer and thus create an optimal bond. ::

Figure 1: Reason for osmosis

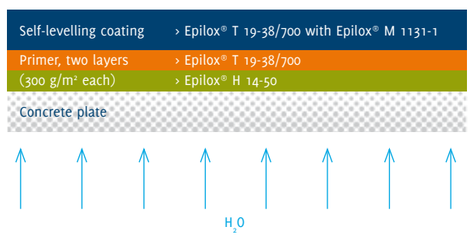


PROTECTION AGAINST OSMOSIS: EPILOX® T 19-38/700 WITH EPILOX® hardener H 14-50

The cause of osmosis is a concentration gradient on both sides of a semipermeable membrane. The solvent, e.g. water, flows from the side of low concentration of dissolved substances to the side of high concentration of dissolved substances in order to compensate the concentration gradient.

If the binder system is not suitable for primers, the primer can act as a semipermeable membrane, and delamination as well as osmotic blisters can occur. This especially affects coatings applied to damp substrates. The combination of Epilox® T 19-38/700 and Epilox® hardener H 14-50 allows the application of pore-free and dense primers. ::

Figure 2: Protection against osmosis



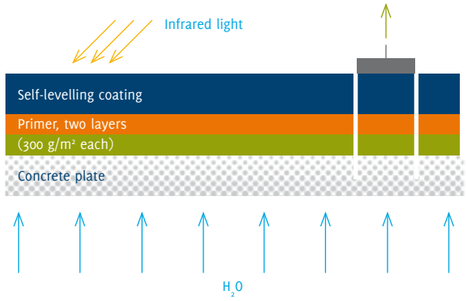
TESTING METHOD BASED ON DIN EN 1504-2

TEST SPECIFICATIONS

:: The pores of the concrete slab are 100% saturated with water.
:: The primer is applied at 10 °C.
:: The surface is warmed to approx. 50 °C with IR rays in a 12-hour cycle.

It must be ensured that the application is performed at a low temperature (10 °C). The cyclical warming of the surface greatly accelerates the process of osmosis. Results can reliably be seen after a testing period of about 14 days. ::

Figure 3: Test method



QUICK GUIDE :: APPLICATIONS WITH EPILOX® SYSTEMS

SELF-LEVELLING COATINGS

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

This nonylphenol-free resin/curing agent combination provides excellent levelling and surface properties with a pot life (min. to T_{max},100 g) of 65 minutes.

FAST CURING AGENTS

Epilox® T 19-38/700
Epilox® hardener M 1178

Systems with Epilox® hardener M 1178 are not only faster, but also demonstrate features that are normally only encountered in top coat curing agents. Epilox® hardener M 1178 exhibits good levelling and surface properties, chemical resistance and good UV stability in addition to fast cure.

SYSTEM FOR QUICK ACCESSABILITY AND QUICK TRAFFICABILITY

Epilox® T 19-38/700
Epilox® hardener M 1178 plus Epilox® hardener M 1128 (1:1)

The Epilox® hardener M 1178 can be used together with standard hardeners such as the Epilox® hardener M 1128 to accelerate and achieve faster curing.

Please contact us for more information on the reported system.

LEUNA-Harze GmbH
Am Haupttor, Bau 6619
06237 Leuna
Germany

Telephone: +49 3461 433094
Fax: +49 3461 436543
Email: leuna.harze@leuna.de
leuna-harze.de

03/2019