Product information

ANQUAMINE® 728

Curing Agent

DESCRIPTION

Anquamine 728 is a waterborne amine curing agent for use in concrete epoxy primers and topcoats that delivers fast backin-service next day under adverse cure conditions (10°C and 60-85% RH). The product can be used with Ancarez AR-555 solid epoxy resin dispersion to facilitate 1-day floor Installation (primer/topcoat) with next day walk-on. Coatings based on Anquamine 728 can be applied upto 500 g/m^2 with minimal impact on cure speed.

TYPICAL PROPERTIES

Property	Value	Unit	Method
Appearance	Clear yellow liquid		
Colour	max 5	Gardner	ASTM D 1544
Viscosity @ 25°C	5000-15000	mPa.s	Brookfield RV, Spindle 27
Solids	53-58	wt %	calculated
Amine Value	160-220	mg KOH/g	Perchloric acid titration
Specific Gravity @ 25°C	1.07		
AHEW	250		theoretical
Recommended Use Level with solid epoxy dispersion	34	PHR	With Ancarez® AR-555 solid epoxy resin dispersion, EEW550, at 75% stoichiometry
Recommended Use Level with liquid epoxy resin	125-130	PHR	With standard bisphenol A diglycidyl ether, EEW190, at 100% stoichiometry

ADVANTAGES

- Rapid dry speed at ambient and low temperatures
- Excellent resistance to carbamation
- Excellent pigment acceptance and colour stability through potlife
- Low colour and good yellowing resistance
- Excellent adhesion to damp concrete

APPLICATIONS

- Concrete primers (100-500 g/m^2)
- Pigmented concrete coatings (100-500 g/m^2)

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SHELF LIFE

At least 12 months from the date of manufacture in the original sealed container at ambient temperature.

STORAGE AND HANDLING

Refer to the Safety Data Sheet on Anquamine 728 curing agent.

TYPICAL PERFORMANCE PROPERTIES*

Property	Value	Unit	
Applied thickness	100-500	g/m^2	
Pot-life by gloss at 23°C	50-60	min	ISO 9514 (Gloss)
Time to Dry-Hard at 10°C	3-4	h	ASTM D1640 (Dry-Hard)
Pendulum Hardness at 10°C, after 24h and 7d	200 / 330	s	ASTM D4366 (Persoz pendulum)
Carbamation resistance11 at 10°C	4-5	Rating 1-5	ISO 2812 (Wet Patch)
Adhesion to B25 concrete slab at 10°C	6.0 / >90% A	MPa/Mode-%	ISO 4624 (Pull-Off Adhesion), A= concrete cohesive failure

* Concrete primer based on Anquamine 728 and Ancarez AR-555

TYPICAL PERFORMANCE PROPERTIES **

Property	Value	Unit	
Applied thickness	100-500	g/m^2	
Pot-life by gloss at 23°C	120	min	ISO 9514 (Gloss)
Time to Dry-Hard at 10°C	8	h	ASTM D1640 (Dry-Hard)
Pendulum Hardness at 10°C, after 24h	120	s	ASTM D4366 (Persoz pendulum)
Carbamation resistance11 at 10°C	5	Rating 1-5	ISO 2812 (Wet Patch)
Colour stability over pot-life ΔE	< 2.5		Rub-out test over the pot-life using a commercial tinting paste

** White topcoat based on Anquamine 728 and Bis-A/F liquid epoxy resin diluted with Epodil 748 reactive diluent, EEW 190-200, viscosity ca. 1,000 mPa.s

CONCRETE PRIMER

This formulation is ideally suited as a primer for concrete surfaces, including damp concrete, offering fast dry, excellent adhesion and overcoatability.

A-component	PBW
Anquamine 728 curing agent (Evonik)	20
B-component	
Ancarez AR-555 epoxy resin dispersion (Evonik)	60
C-component	
Water	20
Total Parts:	**100**

Instructions for use: After mixing Part A and B, water addition is required to adjust to application viscosity. Pour the primer onto the substrate and spread by use of roller or squeegee.

WHITE TOPCOAT

This system can be used as a white top coat or can be employed as a base for tinting systems and further modified with the addition of pigment dispersions to offer a wide colour pallet.

A-component	PBW
1. Anquamine 728 curing agent (Evonik)	29.1
2. Suryfnol DF-62 defoaming agent (Evonik)	0.1
3. Zetasperse 3800 dispersing agent (Evonik)	1.1
4. Tafigel PUR-55 rheology modifier (Muenzing)	0.6
5. Dynol 980 leveling agent (Evonik)	0.5
6. Kronos 2160 titanium dioxide (Kronos International)	25.6
7. Water	20.1
B-component	
Bis-A/F liquid epoxy resin diluted with Epodil 748 reactive diluent, EEW 190-200, viscosity ca. 1,000 mPa.s	22.9
C-component	
Water to application viscosity	
Total Parts:	**100**

Instructions for use: Charge components 1-5 and stir at low shear. Slowly add pigment/fillers, then increase the speed to 10-20 m/s for 15 minutes. Add remaining components at low shear rate. Note: some of the water may be added during addition of the pigments/fillers in order to achieve a uniform grind.

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