Product information

ANQUAMINE® 661

Curing Agent

DESCRIPTION

Anquamine 661 curing agent is a NPE-free (4-Nonylphenol, branched, ethoxylated) alternative to well established Epilink® 661 curing agent, a leading waterborne polyamine adduct epoxy curing agent used for a wide range of coatings applications. The product offers high-solids content and provides broad formulating potential. Anquamine 661 curing agent has been developed primarily for use with liquid epoxy resin, offering the capability to formulate systems with zero VOC and without resin emulsifiers.

TYPICAL PROPERTIES

Property	Value	Unit	Method
Appearance	Clear Amber Liquid		
Colour	max 10	Gardner	ASTM D 1544
Viscosity @ 25°C	10000-25000	mPa.s	Brookfield RVTD, spindle 4
Solids Content	68-72	wt %	
Amine Value	180-210	mg KOH/g	Perchloric Acid Titration
Specific Gravity @ 21°C	1.10		
Equivalent	200	Wt/{H}	
Recommended Use Level	100-120	phr	Cured with bisphenol-A based epoxy resin (EEW=190)

ADVANTAGES

- Excellent adhesion to a wide range of substrates including damp concrete
- Excellent scratch resistance
- Zero VOC

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APPLICATIONS

- Concrete primers
- Concrete coatings
- Institutional coatings

SHELF LIFE

At least 24 months from the date of manufacture in the original sealed container at ambient temperature. Store away from excessive heat and humidity in tightly closed containers.

STORAGE AND HANDLING

Refer to the Safety Data Sheet on Anquamine 661 curing agent.

TYPICAL CURE SCHEDULE[1]

2-7 days

TYPICAL HANDLING PROPERTIES[2]

Property	Value	Unit	Method
Pot-life by viscosity-time @ 23°C	60-120	min	
Pot-life by gloss-time @ 23°C	2-4	h	
Thin Film Set Time @ 23°C	10	h	ASTM D 5895 - BK Drying Recorder, Phase 3
Persoz Pendulum Hardness 1d/7d @ 23°C	150/280	s	ASTM D 4366

(1) Cured with bisphenol-A based epoxy resin (EEW=190)
(2) Cured with Epires ER-8 epoxy resin (EEW195)

SUPPLEMENTARY INFORMATION

START FORMULATION – CLEAR COATING AND PRIMER (CONCRETE)

A-Component			
Curing Agent	Anquamine 661 curing agent	Evonik	71.5
Diluent	Water		28,5
B-Component			
Epoxy resin	Epires® ER-8 epoxy resin	Evonik	70.0
Total			170.00

After mixing Components A and B, water should be added for required viscosity and application method.

TECHNICAL DATA

Mixing ratio - A to B	by weight	1.4:1
	by volume	100:62
Density	Part-A (g/ml)	1.00
	Part-A (g/ml)	1.12
	Mix	1.05
Theoretical spreading rate (50 µm dry coat)	m^2/kg	10.2
	m^2/l	10.8
Pot-life	min	120-150
BK drying time (Phase 3)	h	10
Persoz pendulum hardness	24h/7 days	150/280

START FORMULATION – HIGH GLOSS TOP COAT

A-Component			
1. Curing agent	Anquamine 661 curing agent	Evonik	43.0
2. Defoamer	Surfynol® DF-62 defoamer	Evonik	0.2
3. Dispersing agent	Disperbyk®-192	Byk Chemie	1.1
4. Pigment	Kronos® 2160	Kronos	34.9
5. Diluent	Water		20.8
Weigh Component 1, add 2-3 under stirring. Add Component 4 and part of 5.			
Disperse the mixture at high speed for 15 minutes; then slowly add rest of Component 5.			
B-Component			
8. Epoxy Resin	Epires® ER-8 epoxy resin	Evonik	41.5
Total			141.5
After mixing Components A and B, water should be added for required viscosity and application method.			

TECHNICAL DATA

Mixing ratio - A to B	by weight	70:30
	by volume	3:1
Density	Part-A (g/ml)	1.35
	Part-A (g/ml)	1.12
	Mix	1.27
PVC	%	12
Pot-life	min	120
BK drying time (Phase 3)	h	10
Gloss at 20°C		95
Persoz pendulum hardness	24h/7 days	90/250

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