

ANQUAMINE[®] 419

Curing Agent

DESCRIPTION

Anquamine 419 waterborne curing agent is a modified aliphatic amine supplied at 60% solids in water (15%) and methoxy propanol (25%). It is intended for use with waterborne solid epoxy resin dispersions in two-component, ambient-cure, waterborne epoxy coatings. Anquamine 419 delivers excellent properties in anticorrosive primers, white gloss enamels and clear coats with solid epoxy resin dispersions. Anquamine 419 can be used with different epoxy dispersions depending on the desired end-use properties.

TYPICAL PROPERTIES

| Property | Value | Unit | Method |
|-----------------------------|--------------|---------|----------------------------|
| Appearance | Amber liquid | | |
| Colour | max 9 | Gardner | ASTM D 1544-80 |
| Viscosity @ 25°C | 8,000-12,000 | mPa.s | Brookfield RVTD, Spindle 4 |
| Specific Gravity @ 25°C | 1.08 | g/ml | |
| Equivalent Wt/{H} | 284 | | (as supplied) |
| Non-Volatiles | 59-63 | % | |
| Recommended use Level | | | |
| Solid Epoxy Resin (EEW 530) | 20-32 | PHR | 0-60% excess epoxy resin |
| Solid Epoxy Resin (EEW 630) | 14-28 | PHR | 0-90% excess epoxy resin |

ADVANTAGES

- Excellent corrosion resistance
- Rapid dry time
- Excellent adhesion to steel
- Good colour and gloss
- Good stain resistance
- Low odour
- Low free amine content

APPLICATIONS

- Industrial maintenance and marine primers and topcoats
- General metal primers
- Transportation primers

SHELF LIFE

At least 24 months from the date of manufacture in the original sealed container at ambient temperature.

STORAGE AND HANDLING

Refer to the Safety Data Sheet for Anquamine 419 curing Agent.

TYPICAL PERFORMANCE PROPERTIES

Typical cure schedule: 7-14 days

Anquamine® 419 was formulated for an Anti Corrosive Primer

PREPARING STEPS

A-Component: Premix the pigments (5-10) and add them to 1-4 under high shear for 15-30 minutes until Hegman gauge 6+ is achieved. Then add 10 and 12 and stir homogenous.

B-Component: Weight 1-3 and mix homogenous under shear for few minutes.

A+B: Mix 5,4 parts of Component A to 1 part of Component B (by weight). After mixing Part A and B, apply a 15-30 minutes induction time prior to application. For high-gloss finishes, no induction time is needed. However, for maximum humidity and corrosion resistance, allow the mixed paint to induct for 15-30 minutes. In gloss enamels, end of pot life is signaled by a visible loss of gloss in the dried film

RECIPE

| Nb. | A-Component | Parts [g] | Parts [%] | Type | Supplier |
|-----|-----------------------------|--------------|-------------|------------------|-----------------|
| 1. | Water | 56,0 | 10,9 | Water | |
| 2. | Disperbyk 190 | 6,1 | 1,2 | Additive | BYK |
| 3. | Surfynol DF75 | 1,9 | 0,3 | Additive | Evonik |
| 4. | Surfynol 420 | 2,3 | 0,4 | Additive | Evonik |
| 5. | Bayferrox 130M | 32,8 | 6,4 | Pigment | Lanxess |
| 6. | Zeeospheres G400 | 28,5 | 5,5 | Pigment | Zeeospheres |
| 7. | Sparwite Barytes | 28,5 | 5,5 | Pigment | CNESST |
| 8. | Wollastocoat 10ES | 28,5 | 5,5 | Pigment | NYCO |
| 9. | Halox SW111 | 43,8 | 8,5 | Pigment | ICL |
| 10. | Mica White 325 | 4,4 | 0,9 | Pigment | H.W. Sand Corp. |
| 11. | Ancarez AR555 | 188,3 | 36,5 | Epoxy Dispersion | Evonik |
| 12. | Rheolate 310 (15% in water) | 14,6 | 2,8 | Additive | Elementis |
| | Total A | 434,9 | 84,4 | | |
| Nb. | B-Component | Parts [g] | Parts [%] | Type | Supplier |
| 1. | Anquamine 419 | 51,5 | 10,0 | Curing Agent | Evonik |
| 2. | Dowanol PM | 14,9 | 2,9 | Solvent | DOW |
| 3. | Water | 14,1 | 2,7 | Water | |
| | Total B | 80,5 | 15,6 | | |
| | Total A and B | 515,4 | 100 | | |

TYPICAL PROPERTIES

| Property | Value | Unit | |
|---------------------------|-------|------|--|
| Vol. Solids (A+B) | 47 | % | |
| Wt. Solids (A+B) | 61 | % | |
| PVC | 30 | % | |
| VOC | 137 | g/l | |
| Mix ratio by Weight (A:B) | 5,4:1 | | |
| Mix Viscosity | 65 | KU | |
| Stoich | 80 | % | |

TYPICAL HANDLING PROPERTIES

Pot-life: > 6 h

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