K2P Phenalkamine

Epoxy Hardeners

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Product Description

K2P Phenalkamines are range of epoxy curing agents (synthesized from Cardanol). Fast replacing polyamides and polyamines which are more frequently used curing agents. Fast and low temperature (< 5 deg C) cure properties of phenalkamines are of advantage to coating formulations.unique water resistance properties and temperature insensitive cure provided by this chemical Application productivity is significantly improved. Faster cure helps re-coating or returning to service more rapidly. Solvent free formulations that will continue to cure when immersed in water and solvent based coatings that will continue to cure in poorly ventilated conditions. In forced cure industrial coating applications, K2P Phenalkamines can help save energy by lowering oven cure temperatures. Adhesion to poorly prepared or tough wet surfaces, such as water saturated concrete is especially good with K2P Phenalkamines because this hydrophobic effect ensures surrounding water does not influence the surface resin bond.

Application Information

Unique properties of K2P Phenalkamines make them an excellent choice for marine and offshore coatings, solvent-free industrial floor coatings, railcar and agricultural / construction equipment coatings, and tank and pipe linings. They are also used for adhesive, automobile, and electrical potting applications.

Phenalkamine for Metal coatings

| Typical Properties | | | | | | |
|---|---------------|---------------|---------------|---------------|--|--|
| | K2P-5408 | K2P-5418 | K2P-5418x90 | K2P-5418LV | | |
| Solids (% min) | 95 min | 95 min | 88 min | 95 min | | |
| Viscosity (cPs, @25 deg C) | 2000~3000 | 20000~30000 | 2000~3000 | 2000~3000 | | |
| Apperance | Reddish brown | Reddish brown | Reddish brown | Reddish brown | | |
| | clear liq. | clear liq. | clear liq. | clear liq. | | |
| Gardner colour | 17 max | 17 max | 17 max | 17 max | | |
| AHEW (g./eq.) | 81 | 130 | 144 | 125 | | |
| Amine Value (mg KOH/g) | 500~550 | 340~370 | 300~350 | 300~350 | | |
| Density (g/ml @25 deg C) | 0.98~1.02 | 0.98~1.02 | 0.98~1.02 | 0.98~1.02 | | |
| Gel Time (mins, 100gm @25 deg C) | 30~50 | 20~35 | 30~45 | 20~35 | | |
| Recommended PHR* | 40±5 | 65±5 | 65±5 | 40±5 | | |
| (for EEW-190) *PHR = Parts per Hundred grams of Resin | | | | | | |

Phenalkamine for Concrete coatings

| Typical Properties | | | | | |
|---|---------------|---------------|---------------|--|--|
| | K2P-5588 | K2P-5008 | K2P-5668 | | |
| Solids (% min) | 95 min | 95 min | 95 min | | |
| Viscosity (cPs, @25 deg C) | 500-1500 | 500-1500 | 700-2000 | | |
| Apperance | Reddish brown | Reddish brown | Reddish brown | | |
| | clear liq. | clear liq. | clear liq. | | |
| Gardner colour | 17 max | 17 max | 17 max | | |
| AHEW (g./eq.) | 95 | 130 | 95 | | |
| Amine Value (mg KOH/g) | 315-365 | 250-290 | 350-385 | | |
| Density (g/ml @25 deg C) | 0.97~0.99 | 0.97~0.99 | 0.98~1.02 | | |
| Gel Time (mins, 100gm @25 deg C) | 30-40 | 30-40 | 20-30 | | |
| Recommended PHR* | 50-65 | 65-70 | 50 | | |
| (for EEW-190) *PHR = Parts per Hundred grams of Resin | | | | | |

Modified Phenalkamine - Adduct system

Typical Properties

| | K2P-5628 | K2P-5568x80 | | | |
|---|--------------|---------------|--|--|--|
| Solids (% min) | 63 min | 75 min | | | |
| Viscosity (cPs, @25 deg C) | 500-2000 | 2500-8000 | | | |
| Apperance | Orange brown | Reddish brown | | | |
| | clear liq. | clear liq. | | | |
| Gardner colour | 15 max | 16 max | | | |
| AHEW (g./eq.) | 174 | 135 | | | |
| Amine Value (mg KOH/g) | 155-200 | 310-350 | | | |
| Density (g/ml @25 deg C) | 0.95~0.97 | 0.98~1.02 | | | |
| Gel Time (mins, 100gm @25 deg C) | 100 | 45-55 | | | |
| Recommended PHR* | 100 | 85±5 | | | |
| (for EEW-190) *PHR = Parts per Hundred grams of Resin | | | | | |

The above typical Properties are for general information only and should not be used for specification purposes. Performance characteristics may vary depending on specification application. All products should be tested in customer's formulation prior to use.

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K2P EPOXY MODIFIERS

K₂P CHEMICALS

Reactive & Unreactive

Product Description

K2P epoxy modfier series (synthesized from Cardanol) are multi-purpose resin modifiers. Environment friendly coats and adhesives products can be formulated using these resin. Hydrophobic in nature allows good corrosion and water resistance, Imparts flexibity and good salt water resistance.

Application Information

K2P epoxy diluent series is designed to reduce VOC levels and modify viscosity for coating systems. Widely used in heavy duty marine protection, industrial, and floor coatings. These diluents rapidly reduce viscosity to provide improved ease of application, improved pigment/filler wetting and improved application properties. Modifiers provide flexibility, toughening, improvement of water resistance and adhesion.

| Typical Properties | | | | |
|---|--------------|---------------|----------------|--|
| | K2P 20208 | K2P 5138 | K2P 5478 | |
| Solids | 98.5 min | 98.5 min | 98.5 min | |
| Viscosity (cPs, @25 deg C) | 90~100 | 30~60 | 20000-50000 | |
| Colour | Orange-Brown | Reddish-Brown | Reddish- Brown | |
| Hydrolysable chlorine % | NA | <2 | 3 max | |
| Epoxy Equivalent Weight | NA | 470~520 | 550-850 | |
| Recommended PHR* | 10~20 | 2~20 | 2~20 | |
| (for EEW-190) *PHR = Parts per Hundred grams of Resin | | | | |

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