

TYPE

Carboxy modified, non yellowing co-curing resin

FORM OF DELIVERY (f.o.d.)

50 % in ethoxypropyl acetate (50EPAC)

USES

In combination with high molecular weight epoxide resins for stoving interior and exterior can coating systems, foil lacquers, stamping enamels, coil coating primer and chemical resistant primer.

PRODUCT DATA

Determined per batch:

Dynamic Viscosity (25 1/s; 23°C) [mPa.s]	1500 - 4000	DIN EN ISO 3219
Non-Volatile Matter (1 h; 135°C; 1 g; ethoxypropyl acetate) [%]	48 - 52	DIN EN ISO 3251
Iodine Colour Number	≤ 50	DIN 6162

Not continually determined:

Acid Value (form of delivery) [mg KOH/g]	190 - 230	DIN EN ISO 2114
Density (20°C) [g/cm³]	1.10	DIN EN ISO 2811-2
Flash Point approx. [°C]	54	DIN EN ISO 1523

PROPERTIES AND USES

PHENODUR® VPM 1150 is preferably used as a co-curing resin for high molecular weight epoxide resins like Beckopox EP 304, EP 307, EP 309 or phenoxy resins like Beckopox EP 401. This combinations are then used mainly to formulate white and clear interior or exterior can coating systems. Such coatings exhibit a high gloss, a very good chemical and corrosion resistance and excellent adhesion on iron and non-ferrous metals. A typical stoving schedule for such coatings is 10 minutes at 200°C. The mixtures of PHENODUR® VPM 1150 with epoxide resins can also be cured through "shock-curing", e. g. at 240°C for 60 seconds. The resulting films are sterilization resistant (e. g. against 2 % lactic acid, 60 min/121°C).

PROCESSING

PHENODUR® VPM 1150 is preferably admixed in ratios between 10 : 90 to 15 : 85 (solid VPM 1150 : solid epoxide resin). The storage stability of such mixtures is approx. 4 months. The solid, high molecular weight epoxide resins are preferably diluted to a solid content of 50 % with suitable solvents like ethoxypropyl acetate. Epoxide resin solutions and PHENODUR® VPM 1150 must be premixed intensively in advance of the pigment grinding process, to assure the best possible gloss and flow. Furthermore, it is advisable to grind at relatively high temperatures and/or at solid contents of the mill base in excess of 55 %. OH-groups containing organic solvents should not be used, even not in small quantities. The resin mixture can be catalysed by phosphoric acid (0.5 - 1.5 % phosphoric acid approx. 45 % calculated on resin mixture with 50 % solid). The storage stability of such systems is however lower, the same is true if amino resins are being used to increase reactivity. For white interior can coating systems, we recommend the use of "chloride" type titanium dioxides. The ratio binder mixture : pigment should be approx. 1 : 1 weight.

STORAGE

At temperatures up to 25°C storage stability packed in original containers amounts standard to 365 days. The expiration date may be extended and COA updated after QC testing of retained samples, only for material in allnex possession.

DISTINGUISHING FEATURES

PHENODUR® VPM 1150 is the first co-curing resin of its kind in the range of Surface Specialties.

SAFETY AND HANDLING

Please consult the Safety Data Sheet (SDS) for safety, health, and environmental data available from allnex.