

TYPE

Epoxy resin modified thermoplastic acrylic resin

FORM OF DELIVERY (f.o.d.)

40 % in xylene (40X)

SPECIAL PROPERTIES AND USE

Air and forced drying industrial coatings with fast drying and high hardness. Specialty coatings for glass, precious metals and plastics.

PRODUCT DATA

Determined per batch:

Dynamic Viscosity DIN EN ISO 3219

dynamic viscosity [mPa.s] 1000 - 2500
(25 1/s; 23 °C)

Iodine Colour Number DIN 6162

iodine colour number <= 2

Acid Value DIN EN ISO 2114

acid value [mg KOH/g] 25 - 35
(non volatile matter)

Non-Volatile Matter DIN EN ISO 3251

non-volatile matter [%] 38,5 - 41,5
(1 h; 125 °C; 2 g; ethyl acetate)

Not continually determined:

Density (Liquids) DIN EN ISO 2811-2

density [g/cm³] 0,96
approx.
(20 °C)

Flash Point DIN EN ISO 1523

flash point [°C] 25
approx.

DILUTABILITY

special white spirit 80/120	⊙	ethoxypropyl acetate	●
white spirit	○	methoxypropyl acetate	●
xylene	●	methyl ethyl ketone	●
solvent naphtha 180/210	⊙	methyl isobutyl ketone	●
ethyl acetate	●	ethanol	⊙
butyl acetate	●	butanol	⊙

● = unlimited dilutability
● = substantial dilutability

⊙ = limited dilutability
○ = very limited or no dilutability

COMPATIBILITY

% Viacryl SC 200	90	75	50	25	10
% other binder	10	25	50	75	90

Acrylic resins

Viacryl SC 121, SC 126 ○ ○ ○ ○ ○

Alkyd resins

Vialkyd AC 451n ● ● ● ● ●

Other binders

Beckopox EP 301 ● ● ● ● ●

Butvar B-98 ○ ○ ○ ● ●

Hostaflex CM 620, CM 630 ○ ○ ○ ○ ●

dibutyl phthalate ● ● ● ● ●

nitrocellulose 24 E ○ ○ ○ ● ●

● = definite compatibility

○ = very limited or no compatibility

SUGGESTED USES

Air drying coating systems

Viacryl SC 200/40X is mainly used for fast drying industrial paints. The dried films are noted for very high hardness and excellent resistance properties e.g. against water and diluted acids. For air-dried systems (tack-free in 15 minutes) Viacryl SC 200 can be used alone or in combination with plasticizers. Such systems compared with systems using Viacryl SC 200 as sole binder show better pigment wetting and flexibility. The use of plasticizers will, however have a negative influence on alkali resistance. The compatibility of Viacryl SC 200 with other coatings ingredients should be controlled from time to time.

Stoving enamels

For stoving systems Viacryl SC 200 is generally formulated with plasticizers and urea or melamine resins. The following ratios have proven successful: Viacryl SC 200 : amino resin : plasticizer = 70 : 15 : 15 or 65 : 15 : 20 (on solids).

Compared with air drying systems such systems show after curing (e. g. 30 min/140 °C) improved flexibility, hardness, impact and chip resistance.

Specialty coatings

For air drying as well as stoving systems Viacryl SC 200 can be used to formulate specialty coatings with good adhesion to glass, precious metals, and various plastics such as ABS and polyphenylene oxide (PPO).

PROCESSING

Pigmentation

Viacryl SC 200/40X can be pigmented with all common inert pigments. With rutile titanium dioxide grades high gloss enamel coatings can be formulated with a pigment volume concentration of up to 16 %, representing a binder / pigment weight ratio of 1 : 0.7. A higher pigment ratio should be avoided since it may lead to loss in gloss and mechanical properties.

Dilution

For further reduction of the product solvents such as esters, ketones, and glycol ether esters are suitable. For blending even aromatics and alcohols can be used.

STORAGE

At temperatures up to 25 °C storage stability packed in original containers amounts to at least 730 days.

DISTINGUISHING FEATURES

Viacryl SC 200/40X is more viscous than the Viacryl grades SC 121 and SC 126. It may be used also for stoving enamels.