

TYPE

Self-crosslinking acrylic resin

FORM OF DELIVERY (f.o.d.)

50 % in butanol / solvent naphtha 180/210 (50BSNB)
(containing also 5 % ethyl diglycol)

SPECIAL PROPERTIES AND USE

Excellent levelling.
Outstanding adhesion to steel, aluminium, tin plate.
Superior deep drawing and overstretching.
Excellent sterilizing properties.

Clear and pigmented exterior coatings of cans, twist-off lids and crown corks.

RESIN COMPOSITION

Copolymer carrying methylol groups

PRODUCT DATA

Determined per batch:

Dynamic Viscosity DIN EN ISO 3219
dynamic viscosity [mPa.s] 570 - 920
(25 1/s; 23 °C)

Iodine Colour Number DIN 6162
iodine colour number <= 3

Acid Value DIN EN ISO 2114
acid value [mg KOH/g] 14 - 22
(non volatile matter)

Non-Volatile Matter DIN EN ISO 3251
non-volatile matter [%] 48 - 52
(1 h; 125 °C; 1 g)

Not continually determined:

Density (Liquids) DIN EN ISO 2811-2
density [g/cm³] approx. 0,98
(20 °C)

Flash Point DIN EN ISO 1523
flash point [°C] approx. 38

DILUTABILITY

special white spirit 100/140	⊙	methyl isobutyl ketone	●
white spirit	⊙	butyl acetate	●
turpentine oil	⊙	methoxypropyl acetate	●
xylene	●	methoxypropanol	●
Shellsol AB	●	ethanol	⊙
acetone	●	butanol	⊙

● = unlimited dilutability
⊙ = substantial dilutability

⊙ = limited dilutability
○ = very limited or no dilutability

COMPATIBILITY

% Viacryl SC 454	90	75	50	25	10
% other binder	10	25	50	75	90

Alkyd resins					
Vialkyd AC 290	●	●	●	●	●
Vialkyd AN 914	●	●	○	○	○
Acrylic resins					
Viacryl SC 420	○	○	○	○	○
Other binders					
Beckopox EP 301	●	●	○	○	○
nitrocellulose 24E	○	○	○	○	○
CAB-551-0.2	●	●	●	●	●

● = definite compatibility

○ = very limited or no compatibility

SUGGESTED USES

Viacryl SC 454 is an ideal binder for clear and pigmented exterior paints for cans, creme jars, twist-off lids and crown corks.

Recommended stoving schedule: 20 minutes / 160 °C to 10 minutes / 200 °C. The cured films show excellent adhesion to steel, aluminium, tin plate, excellent hardness, flexibility and full deep drawing. Pasteurizing is also excellent. Hardness, particularly surface hardness can be enhanced through coemployment of low molecular weight epoxy resins, like Beckopox EP 301, or of benzoguanamine resins without adversely influencing the mechanical properties. Additions may range around 10 % solids of Viacryl SC 454 solids.

PROCESSING

Viacryl SC 454 is dissolved with high boiling aromatic solvents and thus excellently suited for roller coating application, mostly used in the coating of containers and twist-off lids. With further dilution with low boiling aromatic solvents, esters, glycol ethers or mixtures thereof, the paints can be used for spray application.

Pigmentation

Viacryl SC 454 exhibits superior pigment binding capacity. Thus, highly pigmented container enamels yield high gloss films with excellent hiding in a film thickness of from 10 - 20 µm. Any pigment suitable for stoving paints can be used.

Viacryl SC 454 can be stored as well as resin or as pigmented paint and is in this respect superior to conventional systems of alkyd-amino resins.

STORAGE

At temperatures up to 25 °C storage stability packed in original containers amounts to at least 365 days.

DISTINGUISHING FEATURES

Viacryl SC 454, in application, can be compared favourably to Viacryl SC 424 with the essential advantage of extreme deep drawing properties which are neither reduced in two coat systems pigmented base/clear top, nor on overstoving. Viacryl SC 454 is therefore the binder of choice for metal coatings which are subjected to extreme deformation. Viacryl SC 454 is not as reactive as Viacryl SC 424.

Producer:

CAB-551-0.2 (Eastman)