

TYPE

Styrene modified alkyd resin
Dehydrated castor oil type

FORM OF DELIVERY (f.o.d.)

50 % in xylene (50X)

SPECIAL PROPERTIES AND USE

Rapid initial and through drying. Excellent adhesion to steel and aluminium.
Excellent storage stability with anticorrosive pigments. Superior resistance to water and corrosion.

Anticorrosive primers. Weldable zinc dust paints, spraying fillers. Metal paints.

RESIN COMPOSITION

(approx.)

35 % oil
21 % phthalic anhydride
33 % styrene

PRODUCT DATA

Determined per batch:

Dynamic Viscosity DIN EN ISO 3219

dynamic viscosity [mPa.s] 185 - 380
40 % xylene
(25 1/s; 23 °C)

Iodine Colour Number DIN 6162

iodine colour number <= 10

Acid Value DIN EN ISO 2114

acid value [mg KOH/g] < 7
(non volatile matter)

Non-Volatile Matter DIN 55671

non-volatile matter [%] 48 - 52
(120 °C; 5 min)

Not continually determined:

Non-Volatile Matter DIN EN ISO 3251

non-volatile matter [%] 48 - 52
(1 h; 125 °C; 1 g)

Density (Liquids) DIN EN ISO 2811-2

density [g/cm³] 0,97
approx.
(20 °C)

Flash Point DIN EN ISO 1523

flash point [°C] 22
approx.

DILUTABILITY

special white spirit 100/140	●	methyl isobutyl ketone	●
white spirit	●	butyl acetate	●
turpentine oil	●	methoxypropyl acetate	●
xylene	●	methoxypropanol	●
solvent naphta 180/210	●	ethanol	⊙
acetone	●	butanol	⊙

● = unlimited dilutability
● = substantial dilutability

⊙ = limited dilutability
○ = very limited or no dilutability

COMPATIBILITY

% Vialkyd AV 352m	90	75	50	25	10
% other binder	10	25	50	75	90

Alkyd resins

Vialkyd AM 342	○	○	○	○	●
Vialkyd AM 404	○	○	○	○	○
Vialkyd AS 673m	○	○	○	○	○

Modified alkyd resins

Vialkyd AY 472	○	○	○	○	○
Vialkyd AY 412, AY 402	●	○	○	○	○

Other binders

Alpex CK 450	○	○	○	●	●
nitrocellulose 24 E	○	○	○	○	○

● = definite compatibility

○ = very limited or no compatibility

SUGGESTED USES

The main outlets for Vialkyd AV 352m are air drying anticorrosive primers, zinc chromate primers, weldable zinc dust paints and one-coat paints for metal.

Anticorrosive primers - zinc dust paints

Vialkyd AV 352m is mainly designed for the formulation of anticorrosive paints with quick drying and excellent adhesion to metal. The paints afford superior corrosion protection and water resistance after short drying. Primers can be formulated without siccatives; with adequate pigmentation they are recoatable with nitrocellulose lacquers and with paints containing aggressive solvents. Vialkyd AV 352m is also an excellent binder for weldable zinc dust paints with a recommended zinc dust/resin ratio of from 90 : 10 to 95 : 5.

One-coat metal paints

Rapid initial and through drying and resistance to water and chemicals are the advantages of Vialkyd AV 352m, as well as flexibility and film hardness. Vialkyd AV 352m gives high gloss paints. The level of pigments should be adapted to the relatively low oil content of the resin.

PROCESSING

Vialkyd AV 352m can be partially combined with some modified Vialkyd grades, low melting oil soluble hard resins, amino resins, and cyclized rubber (Aplex CK 450). Vialkyd AV 352m is not compatible with other paint raw materials like nitrocellulose, chlorinated rubber, epoxy resins etc. Any normal pigments including zinc chromate and zinc phosphate can be used.

Finishing paints should contain 0.03 % cobalt, metal on solid resin. Lead siccatives are not necessary on account of the pronounced drying characteristics.

The excellent storage stability of anticorrosive primers can be further enhanced through antiskinning agents in double the quantity for non-modified alkyds. About half of the antiskinning agent should be grinded with the pigments. Suitable agents are also combinations of oximes and phenolic substances, with about 2 % of Additol XL 297 and 1 - 2 % of Additol XL 109/50LG, on solid resin, as guiding values.

STORAGE

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

DISTINGUISHING FEATURES

Compared with other modified alkyd resins, Vialkyd AV 352m is suitable for weldable zinc dust paints.