

TYPE

Cyclized rubber resin

USES

Letterpress inks, offset inks, screen printing inks

FORM OF DELIVERY (f.o.d.)

Pellets

PRODUCT DATA

Data are determined by our quality control for each batch (lot) before release.

Determined per batch:

Melting Interval DIN 53181

melting range	[°C]	119 - 129
capillary method		

Dynamic Viscosity (Ubbelohde) DIN 53177

dynamic viscosity	[mPa.s]	98 - 145
50 % toluene		
(23°C)		

Iodine Colour Number DIN 6162

iodine colour number		<= 100
50 % toluene		

DILUTABILITY

Special petroleum 80/110	●	Cyclohexanone	●
White spirit	●	Ethyl acetate	○
Toluene	●	Methoxypropyl acetate	○
Tetrahydronaphthalene	●	Methoxypropanol	○
Dekahydronaphthalene	●	Ethanol	○
Trichlorethylene	●	Isobutanol	○
Acetone	○		

● = unlimited soluble ○ = very limited or no soluble
 ● = substantial soluble

Viscosity at 23°C

	Unit	Value
40% in linseed oil	dPa.s	200
35% in linseed oil	dPa.s	75
50% in PKWF 4/7	dPa.s	125
40% in PKWF 4/7	dPa.s	15

ALPEX CK 514, 45 % in PKWF 4/7, yield clear solution in ratios of 3:1, 2:1 and 1:1 (solid) with the following products: linseed oil, linseed stand oil (30, 60 and 90 dPa.s) and VIALKYD® AR 680.

COMPATIBILITY

	Unit	Value
ALPEX CK 514 : PKWF 4/7 ¹	1:x	>10
MOT ² of the 40% linseed oil solution	%	500
Ethanol tolerance ³ of the 40% linseed oil solution	cm ³	30

¹ 1 part resin: x parts PKWF 4/7

² Turbidity titration with PKWF 28/31 af

³ Turbidity titration with ethanol

Test formulation: 10 g of the 40% resin solution in linseed oil diluted with 30 g xylene and titrated with ethanol until turbidity appears.

SPECIAL PROPERTIES AND USES

ALPEX CK 514 is a synthetic resin based on cyclized rubber. It is readily compatible with mineral oils used for offset and letterpress inks. Because of the non-polar structure, ALPEX CK 514 reduces emulsification of offset inks with the dampening agent employed. It improves ink transfer, and provides prints with good scratch resistance immediately after printing. When suitable formulated, it improves gloss also. ALPEX CK 514 has good resistance to chemicals. ALPEX CK 514 can be used in screen printing inks for various purposes including the production of printed circuits. In gravure printing the ink transfer properties are improved and flocculation of pigments is reduced.

PROCESSING

ALPEX CK 514 can be easily dissolved in mineral oils either by heating to about 180°C or by using a high-speed-solving process. Insertion of air during mixing should be avoided to prevent changes in compatibility due to oxidation and consequent increases in viscosity. Blanketing with inert gas is recommended.

STORAGE

At temperatures up to 25°C storage stability packed in original containers amounts standard to 180 days.

The expiration date may be extended and COA updated after QC testing of retained samples, only for material in allnex possession.

DISTINGUISHING FEATURES

ALPEX CK 514 differs from ALPEX® CK 450 in having lower viscosity and smaller compatibility with mineral oils. ALPEX CK 514 is less inclined to cause misting. It is the preferred product for addition to letterpress inks for high-speed printing machines.

SAFETY AND HANDLING

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