

TYPE

Medium oil, non drying alkyd resin

FORM OF DELIVERY (f.o.d.)

70 % in solvent naphtha 150/180 (70SNA)
(containing also 3.5 % xylene)

SPECIAL PROPERTIES AND USE

Automotive finishes with high gloss and excellent weather resistance and paints for household appliances.

RESIN COMPOSITION

(approx.)

46 % synthetic fatty acids (as triglycerides)
30 % phthalic anhydride

DILUTABILITY

white spirit	○	ethyl acetate	●
xylene	●	butyl acetate	●
solvent naphtha 150/180	●	ethanol	●
methyl ethyl ketone	●	butanol	●

● = unlimited dilutability ⊙ = limited dilutability
 ⊙ = substantial dilutability ○ = very limited or no dilutability

PRODUCT DATA

Determined per batch:

Dynamic Viscosity DIN EN ISO 3219

dynamic viscosity (25 1/s; 23 °C)	[mPa.s]	2700 - 3500
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Iodine Colour Number DIN 6162

iodine colour number		<= 2
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Acid Value DIN EN ISO 2114

acid value (non volatile matter)	[mg KOH/g]	<= 6
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Hydroxyl Value DIN 53240

hydroxyl value (solid matter content)	[mg KOH/g]	125 - 155
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Non-Volatile Matter DIN 55671

non-volatile matter (120 °C; 5 min)	[%]	68 - 72
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Not continually determined:

Non-Volatile Matter DIN EN ISO 3251

non-volatile matter (1 h; 125 °C; 1 g)	[%]	68 - 72
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Density (Liquids) DIN EN ISO 2811-2

density approx. (20 °C)	[g/cm³]	1,04
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Flash Point (Pensky-Martens) DIN EN ISO 2719

flash point approx.	[°C]	46
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SUGGESTED USES

Stoving enamels

Vialkyd AC 451n/70SNA is suitable for cross-linking with amino resins especially to formulate high quality stoving systems for automotive top-coats and one-coat systems for household and electrical appliances.

Films based on Vialkyd AC 451n have good gloss, high body and excellent outdoor durability as well as resistance to petrol and UV radiation. Excellent impact resistance, flexibility, adhesion and surface hardness round out of Vialkyd AC 451n properties.

Vialkyd AC 451n is generally used with reactive conventional melamine resins in ratios of 70 : 30 to 75 : 25 (on solids). Depending on the reactivity of the melamine resin curing takes place at temperatures of 120 - 140 °C for 30 min.

Nitrocellulose combination lacquers

Vialkyd AC 451n has a very good compatibility with nitrocellulosis. Therefore, it is used in non-yellowing nitrocellulosis paints with a very good body. Vialkyd AC 451n is particularly recommended for the formulation of pigmented paints for wood and metal application. In order to improve the gloss and the body, we recommend to add from approx. 10 to 20 % (calculated on solids) of a hard resin.

PROCESSING

Pigmentation

Vialkyd AC 451n/70SNA possesses good pigment wetting properties and is therefore generally used as base resin for pigment grinds. The use of basic pigments should first be investigated through lab trials. The crosslinker should be added after the milling step has been completed.

Dilution

For stoving enamels aromatic hydrocarbons are recommended as diluents together with small quantities of polar solvents such as alcohols.

STORAGE

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