

TYPE

Short-oil alkyd resin based on saturated and unsaturated fatty acids.

USES

- automotive top coats (OEM)
- general-purpose industrial coatings
- pigment pastes for stoving finishes

The resin has very good film and mechanical properties and is resistant to acids and waxes.

FORM SUPPLIED

Approx. 65 % in solvent naphtha 100

SPECIFICATION

Non-volatile content (2 g, 1 h, 125 °C):	65 ± 1 %
DIN EN ISO 3251	
Viscosity (23 °C):	4700 ± 400 mPa·s
DIN EN ISO 3219/A.3	
Acid value, supply form:	≤ 4 mg KOH/g
DIN EN ISO 2114	
Iodine color value:	≤ 5
DIN EN 1557	

OTHER DATA*

Oil content, triglyceride, solvent-free:	approx. 30 %
DIN ISO 6744-4	
Phthalic anhydride, solvent-free:	approx. 40 %
DIN ISO 6744-2	
Hydroxyl content, supply form:	approx. 2.3 %
DIN 53 240-2	
Density (20 °C, solvent-free):	approx. 1.16 g/cm ³
DIN EN ISO 2811-1	
Density (20 °C):	approx. 1.04 g/cm ³
DIN EN ISO 2811-2	
Flash point:	approx. 44 °C
DIN EN ISO 1523	

* These values provide general information and are not part of the product specification.

PROPERTIES / APPLICATIONS

SETAL A F 300 SN is compatible with standard commercial urea and melamine resins. However, given the number of different amino resins on the market, it is always advisable to test compatibility in each individual case. With an alkyd resin/amino resin ratio of 75 : 25 to 70 : 30, optimum film properties are yielded by stoving for 30 min at 120 - 140 °C. Paint films based on SETAL A F 300 SN are resistant to yellowing at temperatures up to 140 °C.

Any change in the degree of whiteness at higher temperatures can be limited by the addition of 0.2 % Irganox 1010 (BASF), calculated on solid resin. However, SETAL A F 300 SN is not recommended for the formulation of pure white top coats requiring overbaking resistance to 150 °C or more.

The stoving temperature can be reduced by combination with reactive alkyd resins, e.g. SETAL A F 310 SN, and highly reactive amino resins. Top coats based on SETAL A F 300 SN are characterized by their high body, good flexibility and resistance to acids and waxes. They also have excellent adhesion to various primer surfacers and, as one-coat finishes, to bare metal. The very good pigment wetting properties of SETAL A F 300 SN ensure haze-free films with brilliant gloss.

Weather resistance

Weathering test results show that gloss retention and chalking resistance are good, even in sub-tropical conditions.

Stability

To ensure the stable viscosity of the product in combination with amino resins, it is advisable for safety reasons to use alcohol solvents.

SOLUBILITY / THINNABILITY

Aromatic hydrocarbons	partly soluble
Aliphatic hydrocarbons	soluble
Terpene hydrocarbons	partly soluble
Alcohols	partly soluble
Esters	soluble
Ketones	soluble
Glycol ethers	soluble

COMPATIBILITY

Stoving SETAL A resins	compatible
Wax-free saturated polyesters	partly compatible
Non-flexibilized urea resins	compatible
Non-flexibilized melamine resins	compatible
Nitrocellulose	compatible
Cellulose acetobutyrate	partly compatible
Epoxy resins (low molecular weight)	partly compatible
Epoxy resins (high molecular weight)	incompatible

STORAGE

When stored in its sealed containers at temperatures not exceeding 30 °C, the product will remain stable for at least 730 days.

LABELING AND REACH APPLICATIONS

This product data sheet is only valid in conjunction with the latest edition of the corresponding Safety Data Sheet. Any updating of safety-relevant information – in accordance with statutory requirements – will only be reflected in the Safety Data Sheet, copies of which will be revised and distributed. Information relating to the current classification and labeling, applications and processing methods and further data relevant to safety can be found in the currently valid Safety Data Sheet.