

67205 Aldehyde Resin A 101

A light-colored, yellowing-resistant condensation product of urea and aliphatic aldehydes.

Physical and Chemical Properties

Form:	pastilles
Color:	pale yellow
Odor:	slight odor

Product Specification

Softening range (DIN 53180):	95 – 110°C
Iodine color (DIN 6162):	≤ 5
Acid value (DIN EN 2114):	≤ 3 mg KOH/g
Solid content (DIN EN ISO 3251, 1g, 125°C, 1 hour):	---
pH-Value, 10%-solution (ISO 976, DIN 53785):	---
Solubility in water:	unsoluble
Viscosity at 23°C (DIN EN ISO 3219):	---

Properties

Density at 20°C (ISO 2811, DIN 53 217):	1.12 g/cm ³
Hydroxyl value (ISO 4629, DIN ISO 4629):	35 mg KOH/g
Saponification value (ISO 3681, DIN 53401):	62 mg KOH/g
Flash point (DIN EN 22719):	---
Sensitivity to frost:	---
Glass transition temperature T _a (DSC):	73°C
Butylglycol content:	---

Solubility

Aldehyde Resin A 101 is soluble in all common paint solvents. Its solubility/diluent tolerance in aliphatic solvents such as mineral spirit is limited.

Compatibility

Aldehyde Resin A 101 is compatible with many coatings raw materials including:

- Alkyd resins
- Vinyl chloride copolymers
- Chlorinated rubber
- Chlorinated paraffin wax
- Nitrocellulose
- Cellulose acetobutyrate
- Aromatic and aliphatic epoxy resins
- Phthalate plasticizers

Properties

(1 very good - 5 insufficient)

Lightness:	2
Lightfastness:	1
Temperature stability:	1
Compatibility:	1
Solubility in alcohol:	1
Solubility in aliphatics:	5

Suitability for waterproof varnishes:	3
Suitability for mineral oil-resistant varnishes:	1
Suitability for saponification-resistant varnishes:	3
Solvent release:	2
Pigment binding ability:	2

Application

Due to its excellent solubility and compatibility Aldehyde Resin A 101 is enabled it to be used in many types of coating formulation. It can be used to improve gloss, hardness, body, adhesion and yellowing resistance, depending on the coating's intended application.

A very pale color and good pigment wetting are two properties that make Aldehyde Resin A 101 particularly suitable for producing all-purpose pigment preparations. The low viscosity of its solutions enable high-pigment-content pastes to be produced.

Since it has good heat resistance, Aldehyde Resin A 101 is also used for baking finishes, particularly since it does not cause any odors or discoloration of the resin.

Aldehyde Resin A 101 is insoluble in petrol and is therefore suitable for mineral oil-resistant coatings. Due to its relatively low solvent retention, it only slightly delays the drying of physically fast-drying systems (e.g. nitrocellulose).

Areas of Application

Nitrocellulose lacquers:

- Improvement of light fastness, gloss and fullness
- Saving of expensive real NC solvents in favor of inexpensive blending solvents due to the very good gelatinizing capacity

Powder coatings:

- Partial replacement up to 15 % possible for epoxy/polyester and PUR powders
- Improved flow properties due to low melt viscosity

Storage

Aldehyde Resin A 101 can be stored at temperatures up to 40°C for 2 years.