

Laropal[®] A 81

Product description Universal grinding resin for solvent-based pigment pastes/preparations.

Chemical nature Condensation product of urea and aliphatic aldehydes

Properties

Physical form Pastilles

Technical data (not supply specification)		
Softening temperature		80 – 95 °C
Iodine color number		≤ 3
Acid value		≤ 3 mg KOH/g
Density at 20 °C		~ 1.11 g/cm ³
Hydroxyl value		~ 20 mg KOH/g
Saponification value		~ 65 mg KOH/g
Glass transition temperature T _g		~ 57 °C

Solubility

Laropal[®] A 81

Alcohols	●
Esters	●
Ketones	●
Aromatic hydrocarbons	●
Aliphatic hydrocarbons	○

- Soluble
- Solutions tend to separate at temperatures below 15 °C, adding 2–5% of an aromatic solvent produces stable solutions.

Compatibility

	Laropal® A 81
Cellulose nitrate	●
Ethyl cellulose	○
Cellulose acetobutyrate	●
Chlorinated rubber	●
VC copolymers	●
Acrylic resins	●
Urea-formaldehyde resins	●
Melamine-formaldehyde resins	●
Alkyd resins	●
Epoxy resins	●
Hydrocarbon resins	●

- compatible
- limited compatibility

Properties

	Laropal® A 81
Brightness	1
Fastness to light	1
Heat resistance	1
Compatibility	1
Soluble in alcohols	1
Soluble in aliphatic hydrocarbons	3
Suitable for coatings resistant to water	3
Suitable for coatings resistant to mineral oils	2
Suitable for coatings resistant to saponification	3
Solvent release	3
Pigment binding capacity	1

- 1 Very good
- 5 Insufficient

Application

Because of its excellent solubility and compatibility, Laropal® A 81 can be used in many types of coating formulations. Depending on the application, Laropal® A 81 improves gloss, hardness, body, adhesion and resistance to yellowing.

Because of its good pigment wetting and very low solution viscosity, it can be used for the manufacture of pigment pastes with a high pigment content.

Laropal® A 81 is very stable to heat and can be used in baking finishes, neither causing odor nor discoloration.

Fields of application

Alkyd resins, air- and oven-drying

- Partial replacement of up to 20 % solids on solids
- Improvement of resistance to yellowing through excellent heat stability and fastness to light
- Improvement of hardness, gloss, body and flow
- Cost reduction
- Use as modifying component in alkyd resin production

Universal pigment pastes

- Very well suitable as grinding resin because of broad compatibility and universal solubility, low solution viscosity, high pigment binding capacity and transparency

Powder coatings

- Partial replacement of up to 15 % of epoxy/polyester or PUR powder
- Improvement of flow due to low melt viscosity

Hot melts for road marking and spray plastics

- Suitable as basic resin in combination with suitable plasticizers due to low melt viscosity, good light fastness and heat stability
- Improves adhesion to substrates

Storage

According to our experience, Laropal® A 81 should be stored at temperatures below 40 °C. Individual pallets should not be stacked since the pastilles are likely to agglutinate. However, the product properties are not adversely affected.

Safety

When handling this product, please comply with the advice and information given in the safety data sheet and observe protective and workplace hygiene measures adequate for handling chemicals.

Note

The data contained in this publication are based on our current knowledge and experience. In view of the many factors that may affect processing and application of our product, these data do not relieve processors from carrying out their own investigations and tests; neither do these data imply any guarantee of certain properties, nor the suitability of the product for a specific purpose. Any descriptions, drawings, photographs, data, proportions, weights, etc. given herein may change without prior information and do not constitute the agreed contractual quality of the product. The agreed contractual quality of the product results exclusively from the statements made in the product specification. It is the responsibility of the recipient of our product to ensure that any proprietary rights and existing laws and legislation are observed.

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