

Laromer® UP 35 D

Laromer UP 35 D is an unsaturated polyester resin for the formulation of radiation curable **Product Description**

putties, primers and topcoats for wood and wood products.

Key Features & Benefits - Good adhesion

- Low viscosity

- Good resistance to chemicals

Chemical Structure Unsaturated polyester, 55% in Dipropyleneglycol diacrylate

Properties

Typical Properties Physical form clear, slightly yellowish and medium,

viscous liquid

Viscosity at 23 °C (73 °F) mPa s ~ 6

(DIN EN ISO 3219)

(Shear rate D 100 s-1)

Acid value mg KOH/g ≤ 35

(ISO 3682, DIN EN 53402)

lodine color number ≤ 5

(DIN 6162)

Density at 20 °C (68 °F) g/cm³ ~ 1.1 (ISO 2811, DIN 53217)

Flash point > 100 (212) °C (°F)

(DIN 51758, ISO 2719)

Solubility, diluent tolerance With the exception of aliphatic solvents, Laromer UP 35 D is soluble in many solvents common to

the coatings industry.

For processing, it can be further diluted with monomers such as Laromer HDDA (hexanediol

diacrylate), Laromer TMPTA (trimethylolpropane triacrylate) or Laromer TPGDA

(tripropyleneglycol diacrylate) as well as with esters, ketones or aromatic hydrocarbons.

Compatibility It is homogenously miscible with most unsaturated acrylic resins, e. g. other Laromer grades.

These typical values should not be interpreted as specifications.

Applications

Laromer UP 35 D is a medium-reactive, unsaturated polyester resin preferably applied in coatings for wood and wood products. After curing, coats are easy to sand, hard and scratch-resistant. Translucent extenders such as barium sulfate, talcum, kaolin or colloidal silica can be used in the manufacture of surfacers.

Laromer UP 35 D can be further diluted with low-volatile monomers such as monofunctional, **Processing** difunctional or trifunctional acrylates. These are incorporated into the film during curing and

influence its properties.

Monofunctional acrylates increase film flexibility. Difunctional acrylates have little influence on film hardness and flexibility while trifunctional acrylates increase film hardness.

With an adequate flash-off zone available, inert solvents may also be used. These must, however, be completely removed from the film prior to radiation curing.

A photoinitiator must be added to allow curing by ultraviolet light. Suitable initiators types are α -hydroxy ketone, benzophenone, acyl phosphine oxide, and blends thereof, for typical coating applications. Best results for white-pigmented coating compounds are obtained using 0.5–2 % acyl phosphine oxide type photoinitiators.

A tertiary amine should not be used as a co-initiator. The high acid value of Laromer UP 35 D could lead to haze and other effects caused by incompatibility could arise.

Safety

General

The usual safety precautions when handling chemicals must be observed. These include the measures described in federal, state, and local health and safety regulations, thorough ventilation of the workplace, good skin care, and wearing of protective goggles.

Safety Data Sheet

All safety information is provided in the Safety Data Sheet for Laromer UP 35 D.

Storage

Please refer to the "Handling and Storage of Polymer Dispersions" brochure.

Important

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BASF Corporation

Dispersions and Resins 11501 Steele Creek Road Charlotte, North Carolina 28273 Phone: (800) 251 – 0612

Email: CustCare-Charlotte@basf.com

Email: edtech-info@basf.com www.basf.us/dpsolutions

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