

Industrial Coatings

Technical Data Sheet



Laromer[®] PR 9052

Product Description	Laromer [®] PR 9052 is a UV-curable polyester resin for the formulation of radiation curable putties, primers and topcoats for wood and wood products. It's dissolved in trimethylolpropane triacrylate
Key Features & Benefits	<ul style="list-style-type: none">- Good adhesion- Low viscosity- Good resistance to chemicals
Chemical Structure	Modified polyester resin, 40% in Trimethylolpropane triacrylate

Properties

Typical Properties	Physical form	clear, slightly yellowish and medium, viscous liquid
	Viscosity at 23 °C (73 °F) (DIN EN ISO 3219)(Shear rate D 100 s ⁻¹)	~ 8 mPa s
	Acid value (ISO 3682, DIN EN 53402)	≤ 35 mg KOH/g
	Iodine color number (DIN 6162)	≤ 5
	Density at 20 °C (68 °F) (ISO 2811, DIN 53217)	~ 1.1 g/cm ³
	Flash point (DIN 51758, ISO 2719)	> 100 °C (212 °F)
	Solubility, diluent tolerance	With the exception of aliphatic solvents, Laromer [®] PR 9052 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. It is incompatible with hydrophobic monomers such as 2-EHA (2-ethylhexyl acrylate).
	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® PR 9052 is a medium-reactive modified polyester resin preferably applied in coatings for wood and wood products. Due to its high cross-link density, cured coatings exhibit high hardness and resistance to scratching. Combined with aluminum oxide, Laromer® PR 9052 yields outstanding resistance to abrasion according to S 42.

Translucent extenders such as barium sulfate, talcum, kaolin or colloidal silica can be used in the manufacture of surfacers.

Processing

Laromer® PR 9052 can be further diluted with low-volatile monomers such as monofunctional, 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 light. Good results are obtained using 1–2 % Irgacure® 2100.

A tertiary amine as a co-initiator should be avoided because the high acid value of Laromer® PR 9052 may cause haze and other incompatibilities.

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 Laromer® PR 9052.

Storage

Protected from light and heat (storage temperatures below 30 °C [86 °F]) and in tightly sealed containers, Laromer® PR 9052 can be stored for 6 months.

Important

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