

Industrial Coatings Printing & Packaging

Technical Data Sheet

Laromer[®] PA 9083



Product Description	Laromer [®] PA 9083 is a methacrylated phosphoric acid ester. Due to the high acid value, this co-binder acts as an excellent adhesion promoter in UV curable coatings, printing inks, and overprint varnishes.
Key Features & Benefits	<ul style="list-style-type: none">- Achieves excellent adhesion on metal and plastics- Flame-retardant (halogen free)- Use as a co-binder
Chemical Composition	Propenoic acid phosphate ester

Properties

Typical Properties	Appearance	low viscous liquid
	Acid value	> 180 mg KOH/g
	Viscosity	1,250 – 3,500 cps
	Shear rate	50 s ⁻¹
	Gardner color	≤ 3
	Density at 25°C (77°F)	1.25 – 1.35 g/cm ³

These typical values should not be interpreted as specifications.

Applications

Laromer[®] PA 9083 is used as a co-binder in energy curable coatings, printing inks, and overprint varnishes where it increases adhesion on metals and various plastics. Being halogen free, it also acts as a flame retarder.

Laromer[®] PA 9083 methacrylate groups cause it to be, by exposure to UV light, chemically incorporated into the network of the cured film. Its good compatibility with most UV curable resins and monomers results in clear, transparent coatings and cured films.

When combined with highly flexible urethane acrylates (Laromer[®] UA 9033) and mono-functional monomers (Laromer[®] TBCH), outstanding adhesion to metallic substrates as well as many plastics can be obtained.

Processing The recommended amount of Laromer[®] PA 9083 is 3 – 12% by weight based on the solids content of the formulation.

In coating applications, Laromer[®] PA 9083 can be used as a halogen-free flame retardant. To achieve a good level of retardation, especially in UV primers for parquet flooring, the dosage rate should be at least 10% by weight based on the solids content of the coating.

Proper photocuring can be achieved from BASF's photoinitiator line such as Irgacure[®] TPO-L, Irgacure[®] 184, Irgacure[®] 369, Irgacure[®] 500, and Irgacure[®] 2100. The usual addition rate is 2 – 5% for coating applications, or 4 – 10% for printing & packaging applications.

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® PA 9083.

Storage

Properly stored and protected from light, an unopened original container of Laromer® PA 9083 can be stored for 6 months. Store at temperatures below 30°C (86°F).

Important

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