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Laromer® PR 9013

General	UV resin for the formulation of radiation curable coatings and printing inks for wood, wood-based products, paper and plastics, with excellent pigment wetting.
Key features & benefits	excellent pigment wetting properties low shrinkage high flexibility outstanding ink/water balance in UV offset good adhesion to plastics
Chemical nature	solution of inert resin in ethoxylated trimethylolpropane triacrylate

Properties

Appearance	clear, high viscous liquid	
Typical characteristics *(should not be interpreted as specifications)*	viscosity at 23°C	45~70 Pa·s
	acid value	≤ 5 mg KOH/g solids
	iodine color number	≤ 5

Application

Laromer® PR 9013 contains an inert resin with excellent grinding properties for all kinds of organic and inorganic pigments. Laromer® PR 9013 can be used as sole or co-binder to formulate either radiation curable pigment pastes or UV offset, UV letterpress and UV screen inks. Corresponding radiation curable pigment pastes as well as UV inks formulated with Laromer® PR 9013 show excellent flow properties even at high pigment loadings, high gloss, low odor, low yellowing and a very good ink/water balance in UV offset applications. Furthermore, Laromer® PR 9013 aids adhesion on a wide variety of plastic substrates because of its low shrinkage.

Since the inert resin in Laromer® PR 9013 does not contribute to reactivity, cure speed can be adjusted when needed - particularly for UV offset inks - by adding suitable tetrafunctional or higher functional monomers. Typical dosage levels of Laromer® PR 9013 in UV offset ink formulations are in the range of 20%~40%.

Laromer® PR 9013 formulated in combination with monofunctional monomers increase the flexibility of UV cured films, with difunctional monomers having hardly any effect on hardness and flexibility, while trifunctional, tetrafunctional and higher functional monomer acrylates increase hardness.

A suitable photoinitiator must be used to photocure Laromer® PR 9013. The photoinitiator types include, for example, α-hydroxy ketone, benzophenone, acyl phosphine oxide, and blends thereof, for typical coating applications. The amount of photoinitiator varies between 2%~5% based on Laromer® PR 9013 as delivered. Acyl phosphine oxide types (MAPO, MAPO-Liquid and BAPO) of photoinitiators are recommended for film thicknesses of 50 g/cm² to ensure through curing.

Laromer® PR 9013 is fully compatible with all conventional mono- and multifunctional monomers as well as with the main oligomer types like epoxy acrylates, polyester acrylates or urethane acrylates.

Storage

Product ought to be kept within sealed unopened containers. Containers should be stored below 35 °C and away from sunlight.

For further detailed application information please contact our Technical Support Department.

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