Laromer® UA 9089

Product description

Laromer® UA 9089 is a tin-free aliphatic urethane acrylate used for the formulations of UV / EB curable coatings onto wood, paper and plastic substrates. It offers a perfect adhesion on plastic substrates (e.g. PVC, LVT) and displays an outstanding weather-stability.

Key benefits

- Diluent free
- Excellent weather resistant
- Highly flexible
- Tough

Chemical nature

Aliphatic urethane acrylate

Properties

Physical form

Medium-viscous liquid

Technical data
(not supply specification)

Viscosity	DIN EN ISO 3219 (23 °C, 25 1/s)	17.0 – 24.0 Pa.s
Iodine color number	DIN EN 1557	≤ 2
Density at 20 °C		~ 1.13 g/cm³
Tensile strength		~ 25 N/mm²
Elongation		~ 60 %

Application

Solubility, compatibility

To formulate low-viscous coatings (e.g. spray viscosity) Laromer® UA 9089 can be diluted with all organic solvents common in the coatings industry with the exception of aliphatic hydrocarbons.

Furthermore Laromer® UA 9089 is compatible with acrylic and methacrylic monomers (e.g. hexanediol diacrylate, tripropylenglycol diacrylate, hydroxyethyl methacrylate, hydroxypropyl methacrylate, …) serving as reactive thinners or other types of UV-resins like polyether-, polyester, epoxy- or urethane acrylates.

Laromer® UA 9089 delivers excellent weather resistance combined with high flexibility and good toughness. Specially on flexible substrates like plastic (e.g. soft PVC) it can be used as alone binder. If increased scratch- and chemical resistance is required, the combination with higher functional urethane acrylates like Laromer® LR 8987 or UA 9048 is beneficial.

Laromer® UA 9089 may slowly crystallize resulting in a slightly turbid product. Crystallization is reduced by the right choice of monomer. Therefore, it has to be checked if formulations based on Laromer® UA 9089 yield clear, defect free films after UV-curing as the crystals usually dissolve during the curing process.

A suitable photoinitiator must be used to photocure Laromer® UA 9089. 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® UA 9089 as delivered.

Acyl phosphine oxide types (MAPO, MAPO-Liquid and BAPO) of photoinitiators are recommended for pigmented coatings and inks or film thicknesses of 50 g/cm² to ensure through curing.

Storage

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

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

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