Laromer® UA 9072

General	Laromer® UA 9072 is an aliphatic urethane acrylate used for the recipes of UV/EB curable coatings. This is the candidate of choice when extreme flexibility and high toughness are required.
Key features & benefits	high elastic tear resistant low yellowing good adhesion
Chemical nature	aliphatic urethane acrylate, 70% solution in Laromer® TBCH

Properties

Appearance	clear, high-viscous liquid	
Typical characteristics *(should not be interpreted as specifications)*	viscosity at 60°C	2~15 Pa·s
	viscosity at 23°C	115 Pa·s
	iodine color number	≤ 2
	density at 20°C	1.08 g/mL
	elongation	> 200%
	tensile strength	> 12 N/mm²

Application

solubility, compatibility

To reduce viscosity Laromer® UA 9072 can be diluted with all organic solvents common in the coatings industry with the exception of aliphatic hydrocarbons.

Furthermore Laromer® UA 9072 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.

fields of application

Laromer® UA 9072 is a solvent-free urethane acrylate diluted with Laromer® TBCH. Due to its rather high viscosity it needs to be applied at increased temperature or in combination with lower viscous resins or monomers.

As an alone-binder it shows an extraordinary toughness/elasticity ratio (elongation of ± 300% at a tensile strength of approx. 15~20 N/mm²). Laromer® UA 9072 is recommended on wood, plastic and mineral substrates to enhance the mechanical properties. Due to its low shrinkage, it shows good adhesion properties as well.

Used as combination resin in UV-coatings and UV-inks to increase elasticity. Its high elasticity combined with low shrinkage increases adhesion on different substrates. Its aliphatic character allows the use in weather resistant and low yellowing coatings.

A suitable photoinitiator must be used to photocure Laromer® UA 9072. 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 9072 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. To achieve highest possible resistance, it is of advantage if the crosslinking is done at oxygen reduced atmosphere.

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.

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
The data contained in this publication are based on our current knowledge and experience. In view of the many factors that may affect processing and application of our product, these data do not relieve processors from carrying out their own investigations and tests; neither do these data imply any guarantee of certain properties, nor the suitability of the product for a specific purpose. Any descriptions, drawings, photographs, data, proportions, weights, etc. given herein may change without prior information and do not constitute the agreed contractual quality of the product. The agreed contractual quality of the product results exclusively from the statements made in the product specification. It is the responsibility of the recipient of our product to ensure that any proprietary rights and existing laws and legislation are observed.

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