

Laromer[®] UA 9050

General

Laromer[®] UA 9050 is a urethane acrylate oligomer useful in UV/EB curing compositions. It is a useful component in wood coating formulations and roller coat varnishes as well as UV-inks.

Key features & benefits

scratch resistant
chemical resistant
weather resistant

Chemical nature

aliphatic urethane acrylate, 80% solution in butyl acetate

Properties

Appearance

clear, medium-viscous liquid

Typical characteristics

(should not be interpreted as specifications)

viscosity at 23°C	3.25 Pa·s
iodine color number	≤ 2
non-volatile components	80%
density at 20°C	1.13 g/mL
flash point	> 23.5 °C

Application

solubility, compatibility

To formulate low-viscous coatings (e.g. spray viscosity) Laromer[®] UA 9050 can be diluted with all organic solvents common in the coatings industry with the exception of aliphatic hydrocarbons. Furthermore Laromer[®] UA 9050 is compatible with acrylic and methacrylic monomers (e.g. HDDA, TPGDA, HEMA, HPMA, ...) serving as reactive thinners or other types of UV-resins like polyether-, polyester-, epoxy- or urethane acrylates.

fields of application

Laromer[®] UA 9050 is resistant to yellowing, weathering and suitable for a wide choice of applications, like coatings with outstanding scratch resistance on plastic and other substrates. Its high acrylic functionality (it contains octa-functional fractions) is reflected by very good resistance to chemicals and scratching.

The content of butyl acetate makes it a preferred resin for solvent-based spray coatings. To reach the high performance the solvent (butyl acetate) needs to be evaporates first before crosslinking via UV- or EB-radiation.

A suitable photoinitiator must be used to photocure Laromer® UA 9050. 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 9050 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.

To achieve highest possible resistance, it is of advantage if the cross-linking is done at increased temperature and/or 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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