Laromer® UA 8983 Aqua

General	Urethane modified acrylic resin for the formulation of radiation curable coatings for wood, wood products, paper and plastics (e.g. PVC).
Key features & benefits	high reactivity excellent film forming properties polymer according to EU definitions
Chemical nature	water based urethane acrylate dispersion

Properties

Appearance clear, low viscosity liquid

Typical characteristics
(should not be interpreted as specifications)

viscosity at 23°C	50~350 mPa·s
non-volatile components (1g, 125°C, 1h)	38%~42%
pH valve	6.0~8.0
density	1.10 g/mL
acid value	< 0.5 mg KOH/g solids
iodine color number	≤ 2
flash point	< 100 °C

Application

solubility, compatibility

For processing, Laromer® UA 8983 Aqua can be further diluted with DI water. It shows a very good compatibility with other UV curable dispersions (e.g. Laromer® UA 9005 Aqua and Laromer® UA 9064 Aqua) and conventional dispersions (e.g. Joncryl® 8330). For viscosity and rheology improvement we recommend thickeners from BASF (e.g. Rheovis® PU 1250; urethane mid-shear thickener; slightly pseudoplastic).

fields of application

Laromer® UA 8983 Aqua shows, in front of UV curing, highest physical drying properties and high scratch and abrasion resistances.

Laromer® UA 8983 Aqua offers good chemical resistances as well as fast drying on many substrates. Coatings which are resistant to blocking and household chemicals are only formed after radiation curing.

Prior to UV curing, all water needs to be removed from the film in order to prevent staining and mechanically unstable coatings.

For UV curing photo initiator needs to be added. Liquid photo initiators can be stirred in easily, crystalline photo initiators must be dissolved in the coating. For the surface curing we recommend the addition of approx. 1%~3% of α-hydroxy ketone calculated on solid dispersion. For film thicknesses above 50 g/m² and for pigmented coatings we recommend the additional use of a BAPO. It improves the through curing by adding 0.2%~1.0% calculated on solid dispersion. With the recommended photo initiators, we expect no problems during the drying process of the dispersion caused by volatility of the initiators.
UV curable coating formulations containing photo initiators should be stored in UV-impermeable plastic containers.

Storage

Product ought to be kept within sealed unopened containers. Containers should be stored between 5~30 °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.

BASF East Asia Regional Headquarters Ltd.
45th Floor, Jardine House, No. 1 Connaught Place, Central, Hong Kong