

Ebecryl[®] 3639

Technical Data Sheet

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Flexible epoxy acrylate

INTRODUCTION

Ebecryl[®] 3639 is a special epoxy acrylate exhibiting good flexibility and very high reactivity.

Ebecryl 3639 is especially recommended to formulate radiation curable coatings and inks with good flexibility, very high reactivity and outstanding scratch and chemical resistances.

Typical applications of this product include:

- flexo inks
- screen inks
- overprint varnishes
- resilient flooring coatings
- paper upgrading
- coatings on plastics
- coatings on wood

PERFORMANCE HIGHLIGHTS

Ebecryl[®] 3639 is characterized by :

- medium viscosity
- light colour
- very high reactivity

UV cured inks and coatings based on Ebecryl[®] 3639 are characterized by the following properties:

- high flexibility
- excellent scratch resistance
- outstanding resistance to chemicals

TYPICAL VALUES

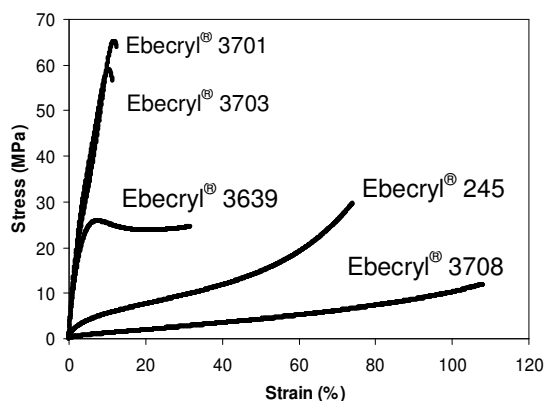
Cone and plate viscosity at 25 °C, Pa.s	15.5
Colour, Gardner	max. 2
DPGDA content, %	30 to 35

PHYSICAL PROPERTIES

Density, g/ml	1.15
Molecular weight, theoretical, g/mol	1800
Functionality, theoretical	2

MECHANICAL PROPERTIES

The following graph shows the stress-strain properties of Ebecryl[®] 3639 compared to other flexible radiation-curable oligomers (50 microns thick free films, tested at 50 m/min and 23 °C, 50% relative humidity).



VISCOSITY REDUCTION

Ebecryl[®] 3639 can be diluted with reactive diluents such as 1,6 hexanediol-diacrylate (HDDA)⁽¹⁾, trimethylolpropane triacrylate (TMPTA)⁽¹⁾, tripropyleneglycol diacrylate (TPGDA)⁽¹⁾ and OTA 480⁽¹⁾. The specific reactive diluent(s) used will influence performance properties such as hardness and flexibility.

⁽¹⁾ HDDA, TMPTA, TPGDA, and OTA 480 are produced by Cytec Surface Specialties.

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STORAGE AND HANDLING

Care should be taken not to expose radiation curable products to temperatures exceeding 40 °C for prolonged periods or to direct sunlight.

This might cause un-controllable polymerization of the product with generation of heat.

Storage and handling should be in stainless steel, amber glass, amber polyethylene or baked phenolic lined containers.

Do not store this material under an oxygen free atmosphere. Use dry air to displace material removed from the container.

This material should not be stored for more than 1 year.

PRECAUTIONS

Appropriate precautions should be taken to avoid eye and skin contact and to avoid inhalation of the aerosols or vapours.

Consult the relevant Safety Data Sheet for appropriate handling procedures and protective equipment prior to using this or any other material referred to in this bulletin.

See Safety Data Sheet also for emergency and first aid procedures.

STATUTORY LABELLING

Please refer to the Safety Data Sheet.

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