

EBECRYL® 4666

Unsaturated aliphatic allophanate urethane acrylate.

INTRODUCTION

Ebecryl®4666 is a weather-stable undiluted aliphatic urethane acrylate having very low viscosity.

PERFORMANCE DATA

Formulations based on Ebecryl®4666 exhibit high reactivity and result in hard films.

Coatings formulated with Ebecryl®4666 are characterized by very good chemical and mechanical resistance including scratch resistance. Other characteristics are high abrasion resistance and very good resistance to yellowing.

SUGGESTED APPLICATIONS

Ebecryl®4666 is used in the formulation of radiation-curing coatings (UV and electron beam) for the coating of wood, plastics and mineral substrates via the roller coating, spray or curtain coating processes.

SPECIFICATIONS

Viscosity at 23°C, mPa.s	approx. 60000
Hazen colour value	approx. 100

TYPICAL PROPERTIES

Acid number mg KOH/g	approx 0.2
Hydroxyl content, %	<0.1
Density at 20°C, g/cm ³	approx. 1.18
Flash point, °C	> 100

COMPATIBILITY

Depending on the application, the coatings can be set to application viscosity using conventional reactive thinners (mono-, di-, tri- or tetra-acrylic acid esters) or solvents (e.g. butyl acetate). If solvents are used, these must be completely removed from the film prior to irradiation. Due to the large number of possible combinations, compatibility must be tested in each case.

SUGGESTED FORMULATIONS

Because of the low-viscosity of Ebecryl®4666, coating formulations require less reactive thinner and thus the binder properties are retained over a broad range of viscosities. Application at higher temperatures is also possible.

Conventional photoinitiators can be used for the UV curing of Ebecryl®4666. These are added in quantities of up to 5 % or higher in concentrations that satisfy the reactivity requirements of the respective application. With electron beam curing good inertisation must be ensured (risk of surface inhibition).

Matting agents typically used in the coatings industry can be used for the formulation of matt coatings. Special consideration should be given here to sedimentation, as this can result in premature gelling of the coatings.

STORAGE AND HANDLING

Storage in original sealed Allnex containers.
Recommended storage temperature : -10 to + 35°C
Protect from intense radiation (light, UV), heat and foreign material.

This material should not be stored for more than 12 months.

The lapse of the 12 months period does not necessarily mean that the product no longer meets specifications or the set values. However, prior to using said product, Allnex recommend to test such a product if it still meets the specifications or the set values. Allnex does not make any guarantees regarding the product after the lapse of the 12 months period and Allnex shall not be responsible or liable in any way for the product failing to meet specifications or the set values after the lapse of the 12 months period.

STATUTORY LABELLING

For Statutory Labelling information, please refer to Safety Data Sheet.

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