

# EBECRYL® 4683

*Unsaturated aliphatic urethane acrylate*

## INTRODUCTION

Ebecryl®4683 is an unsaturated aliphatic urethane acrylate that is used in the formulation of UV-curing and electron beam-curing coatings on metal substrates.

## PERFORMANCE DATA

Formulations based on Ebecryl®4683 exhibit high reactivity and result in hard films.

Coatings formulated with Ebecryl®4683 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®4683 is used in the formulation of radiation-cured (UV and electron beam) coatings for application by roller coating, spraying or curtain coating on metal substrates.

## SPECIFICATIONS

Viscosity at 23°C, mPa.s	approx. 50000
Hazen colour value	approx. 100

## TYPICAL PROPERTIES

Density at 20°C, g/cm <sup>3</sup>	approx. 1.1
Flash point, °C	94°C

## COMPATIBILITY

Depending on the application, the coatings can be adjusted to application viscosity using standard reactive thinners (mono-, di-, tri- or tetra-acrylic acid esters) or solvents such as butyl acetate. Because of the many potential combinations with thinners and solvents, compatibility must be tested in each individual case.

## SUGGESTED FORMULATIONS

As with any product, use of Ebecryl®4683 in a given application must be tested (including but not limited to field testing) in advance by the user to determine suitability.

The UV-curing of coatings formulated with Ebecryl®4683 requires the addition of conventional photoinitiators, up to 5% or in concentrations that satisfy the reactivity requirements of the application. In the case of electron beam curing, good inertization must be ensured (risk of surface inhibition).

Matt coatings can be produced using conventional matting agents. Care should be taken with respect to sedimentation, which may cause the coating to gel prematurely, thus affecting the storage stability.

## 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.

Allnex guarantees that for a period of 12 months following the day of manufacturing, the product will meet the specifications or values set forth in section "specifications or characteristic data" above, whatever is applicable, provided that the product is stored in full compliance with the storage conditions set forth in and referenced under section "storage" above and is otherwise handled appropriately.

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.

June 2015

---

• Worldwide Contact Info: [www.allnex.com](http://www.allnex.com) •

Disclaimer: Allnex Group companies ("Allnex") decline any liability with respect to the use made by anyone of the information contained herein. The information contained herein represents Allnex's best knowledge thereon without constituting any express or implied guarantee or warranty of any kind (including, but not limited to, regarding the accuracy, the completeness or relevance of the data set out herein). Nothing contained herein shall be construed as conferring any license or right under any patent or other intellectual property rights of Allnex or of any third party. The information relating to the products is given for information purposes only. No guarantee or warranty is provided that the product and/or information is adapted for any specific use, performance or result and that product and/or information do not infringe any Allnex and/or third party intellectual property rights. The user should perform its own tests to determine the suitability for a particular purpose. The final choice of use of a product and/or information as well as the investigation of any possible violation of intellectual property rights of Allnex and/or third parties remains the sole responsibility of the user.

Notice: Trademarks indicated with the ®, ™ or \* are registered, unregistered or pending trademarks of Allnex Belgium SA or its directly or indirectly affiliated Allnex Group companies.