Developmental Product

Bayer MaterialScience

Product Information

DESMOLUX™ VP LS 2299

Unsaturated Amine-Modified Polyether Acrylate

Description

Desmolux VP LS 2299 is an unsaturated amine-modified polyether acrylate free of reactive thinner, that is used in the formulation of UV-curing and electron beam-curing coatings. Desmolux VP LS 2299 is characterized by its low viscosity and high reactivity. Coatings based on this product have good sandability and resistance to chemicals.

Application

Desmolux VP LS 2299 is used in the formulation of radiation-cured (UV and electron beam) coatings for application by roller coating, spraying and curtain coating on wood, furniture, paper and film. The yellowing properties should be noted. Depending on the application, the coating can be adjusted to application viscosity using conventional reactive thinners (mono-, di-, tri- or tetraacrylates) or solvents such as butyl acetate.

The low viscosity of the supply form means that less reactive thinner is required and that the properties of the binder are therefore retained over a wide viscosity range. In the case of combinations of Desmolux VP LS 2299 with polyisocyanates (dual cure), particular attention should be given to the pot life. Because of the many potential combinations with thinners, solvents and other substances, compatibility must be tested in each individual case.

UV curing of coatings formulated with Desmolux VP LS 2299 requires the addition of conventional photoinitiators, up to 5 % or concentrations which meet the reactivity requirements of the application. In the case of electron beam curing, good inertisation must be ensured (risk of surface inhibition). Matte coatings can be produced using conventional matting agents. Care should be taken with respect to sedimentation which may cause the coating to gel prematurely.

As with any product, use of Desmolux VP LS 2299 in a given application must be tested (including but not limited to field testing) in advance by the user to determine suitability.

Product Specifications

Property	Value
Viscosity @ 23°C, mPa.s D = approx. 40 s^{-1}	Approx. 600
Iodine color value	Approx. 2
Acid value, mg KOH/g	Approx. 2

Typical Properties*

Property	Value
Density, g/cm^3	Approx. 1.13
Flash point,°C	> 100

Note: Desmolux VP LS 2299 is a developmental product that is furnished for research and development purposes only. The information contained herein is merely preliminary data because testing as to properties is not final. Further information including data that could change or add hazards associated with use, may be developed. Such information may be needed to evaluate and/or use this product properly. The purchaser/user agrees that: use is undertaken at the purchaser's/user's sole risk, that the material is furnished "as is, with all faults," without any warranty or guarantee; and that Bayer MaterialScience LLC shall not be liable for any damages, of whatever nature, arising out of the purchaser's/user's receipt and/or use of the material. Commercialization and continued supply are not assured. The purchaser/user agrees that Bayer MaterialScience LLC reserves the right to discontinue supply at any time.

* *These items are provided as general information only. They are approximate values and are not part of the product specifications.*

Storage

Recommended storage temperature for Desmolux VP LS 2299 is -10°C to 35°C. The shelf life is six months after receipt of material by customer, when stored in closed, original containers. This product should be protected from intense radiation (light, UV), heat and foreign material.

Health And Safety Information

Appropriate literature has been assembled which provides information concerning the health and safety precautions that must be observed when handling Desmolux VP LS 2299. Before working with these products, you must read and become familiar with the available information on their hazards, proper use, and handling. This cannot be overemphasized. Information is available in several forms, e.g., material safety data sheets and product labels. Consult your local Bayer MaterialScience representative or contact Bayer's Product Safety and Regulatory Affairs Department in Pittsburgh, PA.

Note: The information contained in this bulletin is current as of May 2012, please contact Bayer MaterialScience to determine whether this publication has been revised.

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