



Bayhydrol[®] UV 2923

Characterization Bayhydrol UV 2923 is a UV-curable polyurethane dispersion polyurethane dispersion that shows fast water release and high chemical and mechanical resistance.

Form supplied Approx. 40% dispersion in water

Characteristic data* Property	Value	Unit of measurement	Method
Non-volatile content	38 - 42	%	
pH	7.0 - 8.5		
Viscosity at 25°C	< 800	mPa*s	

*These values are provisional. Binding supply specifications will not be available until the final product data sheet is published.

Other data** Property	Value	Unit of measurement	Method
Appearance	Milky white		
Density at 25°C	approx. 8.9	lb/gal	
Carbon-content based on bio-material ¹	approx. 17		

¹ Calculated minimum content of carbon derived from bio-based raw materials.

**These values provide general information.

Solubility / thinnability Bayhydrol UV 2923 can be thinned with water

Compatibility In general, Bayhydrol UV 2923 is compatible with many other dispersions including UV-curing products. However, compatibility must be tested in each case. Additions of solvent, which may be necessary as an additive, are generally unproblematic. After adjusting the pH to > 7.0, the compatibility should always be tested.

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Properties / Applications

Bayhydrol UV 2923 is used in the formulation of aqueous UV-curing coatings, especially for application on wood/plastic materials. Bayhydrol UV 2923 was generally developed for pigmented coatings that show excellent chemical, stain and mar resistance. Additions of 0.5 - 2.5 % by wt. photoinitiator, calculated on the solid binder, have proved suitable for initiating the curing reaction. Matting agents and additives can be dispersed directly in the product using a dissolver. Bayhydrol UV 2923 is easily matted using standard matting agents. As a rule, the coatings should be colored using aqueous pigment pastes. After evaporation of the water, the coatings can be cured at a belt speed of up to 10 m/min per 80 W/cm Hg lamp. Ga-doped lamps and special photoinitiators are normally used in the curing of pigmented systems. To ensure optimum curing, it is important that the film contains no water and that thermal pre-drying has taken place.

Storage

- Storage in original sealed Covestro container
- Recommended storage temperature: 5 – 30°C
- Protect from intense radiation (light, UV), frost, heat and foreign material

General information: The product is sensitive to frost. Freezing will damage the product irreversibly. Prolonged storage at higher temperatures may result in an increase of average particle size, risk of sedimentation, risk of pH -drift, and ultimately coagulation. Even though the product is stabilized by a biocide, contamination with certain bacteria, fungi or algae may render the product unusable.

Storage time

Bayhydrol UV 2923 has a storage period of 6 months following the day of shipment, provided the material is stored in sealed original containers at the recommended storage conditions. The lapse of the storage period does not necessarily mean that the product no longer meets specifications. However, prior to using the product, Covestro recommends testing the product to confirm that it still meets the specifications. Covestro does not make any representation regarding the product after the lapse of the storage period and Covestro shall not be responsible or liable in any way for the product failing to meet specifications after the lapse of the storage period.



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Other Information

Bayhydrol[®] is a registered trademark of Covestro.

Health and Safety Information

Appropriate literature has been assembled which provides information concerning the health and safety precautions that must be observed when handling this product. Before working with this product, you must read and become familiar with the available information on its risks, proper use, and handling. This cannot be overemphasized. Information is available in several forms, e.g., safety data sheets and product labels. For further information contact your Covestro LLC representative or the Product Safety and Regulatory Affairs Department in Pittsburgh, PA.

Important

This is a Trial Product of which we do not yet have extensive experience. No guarantee can therefore be given regarding the behaviour of the product during processing or use.

The manner in which you use and the purpose to which you put and utilize our products, technical assistance and information (whether verbal, written or by way of production evaluations), including any suggested formulations and recommendations, are beyond our control. Therefore, it is imperative that you utilize our products, technical assistance and information to determine to your own satisfaction whether our products, technical assistance and information are suitable for your intended uses and applications. This application-specific analysis must at least include testing to determine suitability from a technical as well as health, safety, and environmental standpoint. Such testing has not necessarily been done by us. Unless we otherwise agree in writing, all products are sold strictly pursuant to the terms of our standard conditions of sale which are available upon request. All information and technical assistance is given without warranty or guarantee and is subject to change without notice. It is expressly understood and agreed that you assume and hereby expressly release us from all liability, in tort, contract or otherwise, incurred in connection with the use of our products, technical assistance, and information. Any statement or recommendation not contained herein is unauthorized and shall not bind us. Nothing herein shall be construed as a recommendation to use any product in conflict with any claim of any patent relative to any material or its use. No license is implied or in fact granted under the claims of any patent.

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Document contains important information and must be read in its entirety.

Edition 2023-11-08

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Product Datasheet