Technical Information

Rheovis® PU 1331

(old: DSX® 3100)

BASF
The Chemical Company

general

Rheovis® PU 1331 is a heavy metal-, solvent- and VOC free solution of polyurethane in water. Heavy metal catalysts are not part of the product‘s formulation.

Rheovis® PU 1331 is a highly- efficient environmental friendly associative polyurethane thickener designed to give newtonian rheology profile and excellent balance of performance properties to flat, semi-gloss and gloss coatings.

- heighly efficient in ICI viscosity development
- excellent flow and leveling
- excellent scrub resistance
- excellent shelf life for consistent efficiency in performance (non-setlling solution)
- zero-VOC
- compatible with other rheology modifiers

chemical nature

solution of polyurethane in water

Properties

physical form

Whitish liquid

shelf life

Subject to appropriate storage under the usual storage and temperature conditions, our products are durable for at least 2 years

typical properties (no supply specification)

density at 20 °C (68 °F)	~ 1.03 g/cm^3
solid content	~ 18 %
Brookfield viscosity at 23°C (73°F)	~ 4.500 mPa·s

Application

Rheovis® PU 1331 can be used as sole thickener or in combination with other rheology modifiers depending on the desired rheology profile of the particular paint. When used alone Rheovis® PU 1331 creates an almost newtonian rheology profile which is desired in e.g. wood coatings where excellent penetration and levelling is important.
In decorative coatings Rheovis® PU 1331 is usually combined eithet with cellulose ethers or low shear associative thickeners to improve high-shear viscosity (ICI) for better brush drag, hiding power and minimizes spattering.

Rheovis® PU 1331 provides optimum performance in aqueous clear and high gloss top coatings, as well as anti-corrosive paints and thick layer systhems.

recommended concentrations

the typical dosage of Rheovis® PU 1331 is between 0.5- 3 % calculated on toal paint, which has to be incorporated into the paint or mill base during stirring. DSX 3100 allows for an easy incorporation with low shear power (easy handling).

Combination of Rheovis® PU 1331 with other low/mid shear Rheovis® rheology modifiers -or other types of thikeners e.g cellulose ethers- can be used to attain the desired balance of high/low shear viscosities.

Rheovis® PU 1331 is usually added as the final ingredient in formulation. however, in cases where is limited agitation at this stage, addition of portion of 10-20% on total quantity of Rheovis® PU 1331 , just after the grind stage, can aid incorporation of the final component. The coating containing Rheovis® PU 1331 should be allowed to stand for 16 hours for equilibration, to allow the optimum rheology to develop.

Safety
When handling these products, please comply with the advice and information given in the safety data sheet and observe protective and workplace hygiene measures adequate for handling chemicals.

Note
The data contained in this publication are based on our current knowledge and experience. In view of the many factors that may affect processing and application of our product, these data do not relieve processors from carrying out their own investigations and tests; neither do these data imply any guarantee of certain properties, nor the suitability of the product for a specific purpose. Any descriptions, drawings, photographs, data, proportions, weights, etc. given herein may change without prior information and do not constitute the agreed contractual quality of the product. The agreed contractual quality of the product results exclusively from the statements made in the product specification. It is the responsibility of the recipient of our product to ensure that any proprietary rights and existing laws and legislation are observed.

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