

Borchers® VP 9950 (Trial Product)



Primary drier for waterborne oxidatively drying coatings
Drying stabilizer as a dampening solution additive for use in offset printing

Description

Borchers® VP 9950 is a new water-soluble Vanadium-based drier to be used as a primary drier in waterborne oxidatively drying coatings and as a dampening solution additive in printing ink systems. It can be a replacement for other primary driers, especially for cobalt siccatives.

Characteristic data

Appearance:	blue aqueous solution	
Metal content V, %:	6.45 – 6.85	Borchers 08-VA-01
Non-volatile content, %:	27 – 33	ISO 3251 – 1974 (2g, 3h, 105 °C)
Density (20 °C), g/cm ³ :	1.18 – 1.22	DIN 51757(A)
pH - value:	1 - 2	
Solvent:	water	

Properties

Borchers® VP 9950 provides fast drying of the film surface of water-based coating systems. The drying results are comparable to those obtained with cobalt containing water-miscible siccatives. The drying ability of coatings siccated with **Borchers® VP 9950** remains constant even after extended storage.

The product can be used in printing ink systems as a saturant and drying stabilizer for the water phase. Here **Borchers® VP 9950** reduces siccatives leaching into the dampening solution and neutralizes calcium and magnesium ions via complexation.

Applications

Borchers® VP 9950 can be used in neutral and acidic water-based oxidatively drying coating systems, while incompatibilities may occur in basic formulations (pH > 8) due to the acidic pH of **Borchers® VP 9950**.

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Use and Dosage

Borchers® VP 9950 can be added in any formulation step. In water-based coatings we recommend its addition in a final processing step prior to adding an anti-skinning additive.

A dilution with water or any organic solvent is not suggested. The required amount of **Borchers® VP 9950** depends on the particularly used binder and should be determined empirically in preceding investigations.

Usual amounts are approx. 0.03 to 0.06 % Vanadium by weight based on the solid content of the binder. It is recommended to adjust the quantity on the amount of substituted cobalt. Usually a further optimization is necessary.

In waterborne coating systems we recommend the additional use of Octa-Soligen® secondary driers, which can yield synergistic drying effects. Through-drying of the coating film, in particular, is improved by the addition of *Octa-Soligen® Strontium*, *Octa-Soligen® Zinc* or *Octa-Soligen® Zirconium*. The supplementary addition of Calcium basic driers should be avoided. We recommend the use of *Octa-Soligen® Lithium 2* as an alternative.

Storage

Borchers® VP 9950 remains stable at room temperature under normal conditions of use. It should be protected against weathering influences and freezing.

Protect from the effects of weathering and store at temperatures between 5 and 30 °C.
Once opened, containers should be resealed immediately after each removal of the product.

Safety

Please refer to our safety data sheet for further information on safe handling, storage conditions and product safety.

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