

# VINNAPAS® DPX 271

#### Low-Formaldehyde Binder for Water-Resistant Wood Glues (D3)

Waterborne wood adhesives are usually based on PVAc homopolymer dispersions. For water-resistant wood glues, reactive co-monomers are traditionally incorporated as internal crosslinkers to fulfill the requirements of the EN 204 D3 class. These comonomers release formaldehyde upon crosslinking and need an acid catalyst which may cause discoloration of the wood.

With VINNAPAS® DPX 271, WACKER has developed a wood adhesive that displays water resistance as per EN 204 (D3) without a reactive comonomer. Consequently, VINNAPAS® DPX 271 enables high water resistance without the release of formaldehyde in the crosslinking reaction.



DPX technology provides water resistance in PVAcbased adhesives without formaldehyde-emitting components.

Technical Properties of VINNAPAS® DPX 271	
Solids content	46 ± 2
Viscosity (Brookfield, 20 rpm, at 23 °C)	10,000 ± 4,000
рН	5 - 7
D3	> 2 N/mm <sup>2</sup>
WATT 91	Approx. 5 N/mm <sup>2</sup>
Formaldehyde level	< 5 ppm











\* Traditional technology \*\* WACKER DPX technology

## WACKER



### High Filler Acceptance – D3 Water Resistance in Accordance with EN 204 of Formulations Including Fillers



High Filler Acceptance – Good Heat Resistance in Accordance with DIN EN 14257 (WATT 91) of Formulations Including Fillers



#### Advantages of VINNAPAS® DPX 271

VINNAPAS<sup>®</sup> DPX 271 offers two main advantages compared to standard D3 wood adhesives: high water resistance without formaldehyde-emitting chemistry, and low discoloration due to absence of an acid catalyst.

Additionally, VINNAPAS<sup>®</sup> DPX 271 can be formulated with calcium carbonate fillers, thereby providing economic advantages in the final adhesive formulation. Depending on the filler level and particle size of the filler, the water resistance is comparable to or only slightly lower than that of unfilled wood glues. On heat resistance, the addition of filler even has a positive influence.

#### VINNAPAS® DPX 271 at a Glance

- No formaldehyde-emitting chemistry
- Low formaldehyde content (< 5 ppm)
- High water resistance
- High heat resistance
- Fast setting
- No discoloration
- High tolerance to fillers

Note: Formulations with VINNAPAS® DPX 271 require new certificates in order to confirm the fulfillment of EN 204 D3 water resistance for each individual formulation.

### VINNAPAS®

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