

High performance solutions for water-based wood coatings

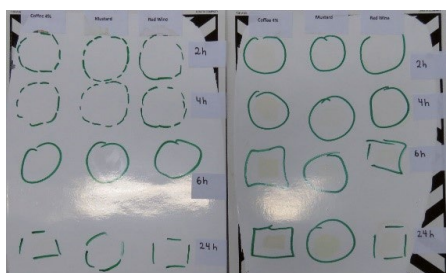
ZETASPERSE® 3600, DYNOL™ 800 and ACEMATT® 3300



ZETASPERSE® 3600 – your first choice wetting and dispersing additive

- Superior performance in respect to chemical resistance
- Excellent viscosity reduction and gloss development
- Recommended for a broad range of pigments and fillers
- Suitable for direct grind and pigment concentrates
- Suitable for resin-free and resin-containing pigment pastes

One of the challenges, especially for 1K water-based wood coatings, is the chemical resistance to coffee, red wine, tea, alcohol, etc., which results in discoloration of the coating. In case of pigmented systems, wetting and dispersing additives can have a negative impact on the chemical resistance of the coatings. ZETASPERSE® 3600 is recommended to disperse a broad range of pigments providing excellent viscosity reduction and stability. In addition, ZETASPERSE® 3600 does not show negative impact on chemical resistance.



Pictures of 1K water-based white pigmented furniture coating based on acrylate emulsion containing ZETASPERSE® 3600 (left) and a market standard dispersant (right). Both samples were tested for chemical resistance to coffee, mustard and wine, with an exposure time of 2, 4, 6 and 24 hours. A clear discoloration can be observed with the coating containing the standard dispersant, while the coating containing ZETASPERSE® 3600 remains unchanged.

DYNOL™ 800 – your first choice substrate wetting additive

- Excellent dynamic surface tension reduction
- Low foam superwetter improving substrate wetting under low shear but also high-speed applications
- Very compatible and easy to incorporate
- Can provide a positive impact on cissing, best used in combination with a suitable defoamer such as AIRASE® 5600
- Improved surface appearance combined with low foam

DYNOL™ 800 is targeted to maximize substrate wetting and minimize surface defects like craters, pinholes and orange peel, while controlling foam generation. When coating wood by low shear methods such as brush or roller, DYNOL™ 800 can provide exceptional performance and a superior balance of properties compared to traditional surfactants.

**Blank –
severe orange peel**



**DYNOL™ 800 –
no defects**



**Silicone-based surfactant –
entrapped air**



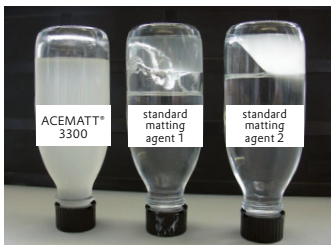
Pictures comparing a 1K water-based wood coating based on a urethane/acrylic hybrid dispersion Hybridur® 870 applied by brush (3 coats) to red oak containing DYNOL™ 800 (middle), a standard silicone surfactant (right) in comparison with the blank sample (left). DYNOL™ 800 allows to obtain a combination of improved wetting, flow and leveling and foam control compared to the silicone surfactant.

ACEMATT® 3300 – your first choice matting agent

- High matting efficiency combined with easy incorporation
- High clarity with less impact on viscosity
- Outstanding anti-sedimentation behavior
- Maintains rheology for water-based systems due to no adsorption of associative thickeners
- Enhances haptic properties when combined with soft-feel resins

ACEMATT® 3300 is a surface-treated thermal silica providing efficient matting effect in water-based wood and furniture coatings and is a top choice matting agent for soft-feel coatings.

Due to its unique organic surface treatment, ACEMATT® 3300 ensures an outstanding anti-sedimentation behavior and in-can stability being an excellent choice when it comes to chemical resistance.



Picture comparing the anti-sedimentation effect of the ACEMATT® 3300 (left) with untreated standard matting agent grades dispersed in a hotmelt resin for 10 days storage at 50 °C. The sample containing ACEMATT® 3300 does not show any sediment.

This information and any recommendations, technical or otherwise, are presented in good faith and believed to be correct as of the date prepared. Recipients of this information and recommendations must make their own determination as to its suitability for their purposes. In no event shall Evonik assume liability for damages or losses of any kind or nature that result from the use of or reliance upon this information and recommendations. EVONIK EXPRESSLY DISCLAIMS ANY REPRESENTATIONS AND WARRANTIES OF ANY KIND, WHETHER EXPRESS OR IMPLIED, AS TO THE ACCURACY, COMPLETENESS, NONINFRINGEMENT, MERCHANTABILITY AND/OR FITNESS FOR A PARTICULAR PURPOSE (EVEN IF EVONIK IS AWARE OF SUCH PURPOSE) WITH RESPECT TO ANY INFORMATION AND RECOMMENDATIONS PROVIDED. Reference to any trade names used by other companies is neither a recommendation nor an endorsement of the corresponding product, and does not imply that similar products could not be used. Evonik reserves the right to make any changes to the information and/or recommendations at any time, without prior or subsequent notice. ACEMATT®, ADDID®, AEROSIL®, AIRASE®, ALBIDUR®, CARBOWET®, DYNOL™, NANOCRYL®, SILIKOFTAL®, SILIKOPHEN®, SILIKOPON®, SILIKOPUR®, SILIKOTOP®, SIPERNAT®, SURFYNOL®, TEGO®, TEGOMER® and ZETASPERSE® are registered trademarks of Evonik Industries or its subsidiaries. Evonik supports you in selecting the best suited product and optimizing current formulations through our Application Technology Group.

.....
Evonik Resource Efficiency GmbH
 Goldschmidtstraße 100
 45127 Essen
 Germany
 Phone +49 201 173-2222
 Fax +49 201 173-1939
 coating-additives@evonik.com
 www.coating-additives.com
