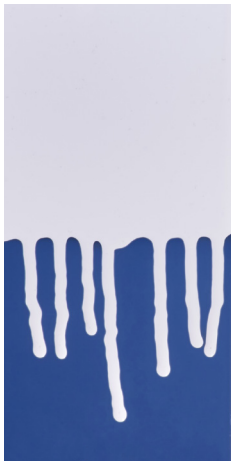
SILICA-BASED RHEOLOGY CONTROL ADDITIVES

Compatibility of AEROSIL® Easy-to-disperse fumed silica vs. organic thickeners



Rheology control agents

Fumed silica and organic thickeners are utilized as primary ingredients for adjusting rheology in numerous coating systems and applications. It is important to note that viscosity enhancement is not the only crucial objective. Other properties, such as compatibility & polarity properties, surface leveling and storage performance are equally essential when it comes to judging the performance of a coating.

The compatibility in various coating systems is shown, comparing fumed silica to organic-based rheology agents.

Compatiblity in solvent-based, 2K-PU clear coat

- Dosage: 1 % of each rheology agent
- Organic thickener 1 (52 % solution of modified urea) is incompatible in solvent-based, 2K-PU clear coat and shows strong gelation behaviour

AEROSIL® E 972
100 % fumed silica powder treated with DDS (dimethylchlorosilane)

Organic thickener 1
52 % solution of modified urea

AEROSIL® E 972 performs very well in sb, 2K-PU clear coat regarding polarity properties and compatibility aspects.

Click here for more information!

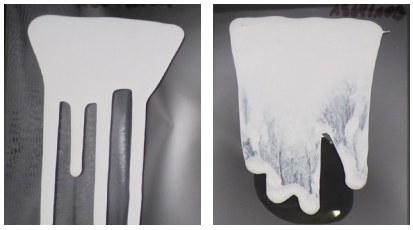
EVONIK
Leading Beyond Chemistry

2024-06

Compatiblity in solvent-based, white pigmented primer

- Dosage: 1 % of each rheology agent
- Organic thickener 1 (52 % solution of modified urea) shows strong incompatibility in solvent-based, white pigmented primer

AEROSIL® E 972
100 % fumed silica powder treated with DDS (dimethylchlorosilane)

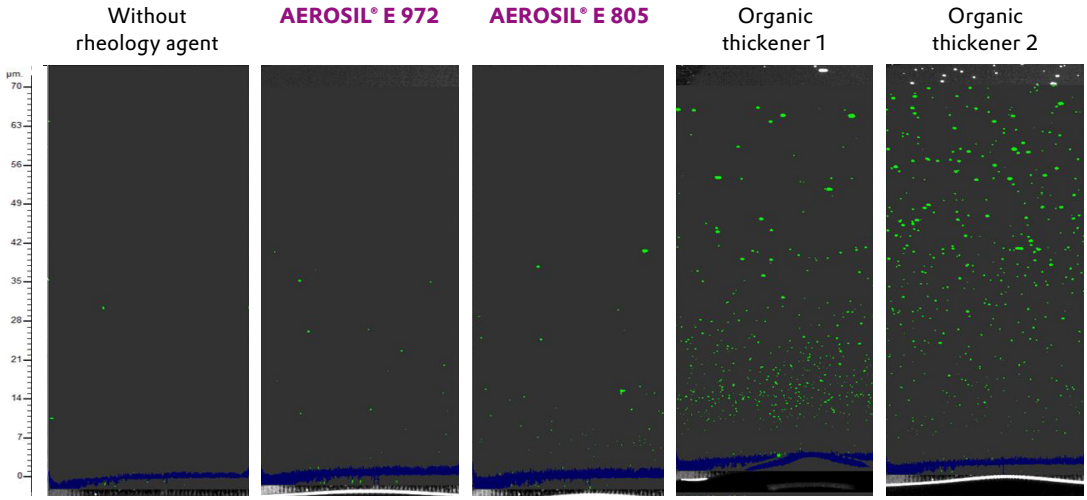


Organic thickener 1
52 % solution of modified urea

AEROSIL® E 972 performs very well in sb, pigmented primer regarding polarity properties and compatibility aspects.

Dispersing quality in solvent-based, white pigmented primer

- Dosage: 2 % of each rheology agent
- Organic thickener 1 (52 % solution of modified urea) & organic thickener 2 (25 % solution of modified urea) are incompatible in solvent-based, white pigmented primer
- Incompatibility shown via TIDAS® grindometer pictures



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 OPERATIONS GMBH
Goldschmidtstraße 100
45127 Essen
Germany

Phone +49 201 173-2222
coating-additives@evonik.com
www.coating-additives.com

EVONIK
Leading Beyond Chemistry