Presentation Title

Advancing from Conventional Substrate Wetting to Super Wetting Performance with Easy-Wet™

Abstract

Effective wetting of solid substrates is a key factor for the performance of water-based industrial coatings. The role of substrate wetting agents in enhancing the performance of a wide range of coatings, including those based on conventional and eco-friendly chemistries, is becoming increasingly significant.

Ashland has developed a new class of Easy-Wet™ super wetting surfactants for water-based industrial coatings. These surfactants, derived from innovative carbon-based chemistry, offer control over both static and dynamic surface tension, demonstrating superior or comparable wetting characteristics to silicone-based super wetting agents. In certain applications, these new carbon-based wetting agents can replace fluorinated surfactants.

This presentation will explore the essential properties for enhanced wetting behavior through a comparative evaluation of silicone-free and silicone-based surfactants on various substrates. The data will illustrate that Easy-Wet™ additives provide a unique combination of improved wetting, low foaming, and cost-effectiveness. Additionally, the low volatile organic compounds (VOC) content and biodegradability of these additives support the development of sustainable, environmentally friendly coatings.