## **Presentation Title**

Aquaflow<sup>™</sup> ECO – a solid solution for more sustainable rheology modification

## Abstract

Synthetic rheology modifiers are widely used to tailor coating formulations for optimal application performance. While these liquid-form modifiers are the industry standard and easy to handle, they pose long-term environmental, health, and safety challenges. Typically supplied at lower active levels, the global shipping of mostly non-functional water increases the carbon footprint due to logistics and warehousing. Additionally, the presence of water necessitates the use of biocides and viscosity suppressants, which can negatively impact human health, the environment, and coating properties.

Ashland's Aquaflow<sup>™</sup> ECO portfolio offers a sustainable alternative to synthetic rheology modifiers. Produced as readily dissolving solid flakes and supplied in paper bags, this modifier is 100% active material. Aquaflow<sup>™</sup> ECO significantly reduces the carbon footprint compared to traditional synthetic rheology modifiers by eliminating the need to transport water as a carrier. In its solid form, Aquaflow<sup>™</sup> ECO eliminates the need for biocides to prevent biological impurities and for solvents or suppressing agents to maintain workable product viscosity.

Aquaflow<sup>™</sup> ECO not only enhances sustainability but also positively impacts coating properties. It provides consistent viscosity control, improved stability, and better application performance. The absence of biocides and suppressing agents ensures that the coatings are safer for both users and the environment. Additionally, Aquaflow<sup>™</sup> ECO contributes to the development of coatings with lower VOC (Volatile Organic Compounds) content, further promoting environmental friendliness.

This presentation will examine these features and benefits of this sustainable alternative by sharing data on its functionality as a drop-in replacement for urethane-type (HEUR) thickeners and other nonionic cellulose ethers.