

Enhanced Latex Stability and Rheology Modification of Paints by the use of 2-acrylamido-2-methylpropanesulphonic acid, AMPS(R).

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AMPS (R) is the registered trademark of the speciality acrylic monomer 2-acrylamido-2-methylpropanesulphonic acid manufactured by the Lubrizol Corporation.

The unique nature of the AMPS molecule lends itself to many applications : textiles, oilfield, water treatment, personal care and coatings. There are currently over 1000 papers / patents citing the use of AMPS.

AMPS copolymerises readily with other acrylic monomers and can stabilise dispersions by electrosteric effects imparted via the sulphonic acid group and by action as a colloidal stabiliser.

It has been observed that AMPS can increase the electrolytic and mechanical stability of a latex. Examples of significant reductions in surfactant whilst maintaining latex stability will be discussed.

Paints prepared from latex stabilised by AMPS were shown to have modified rheology and superior water sensitivity when compared with carboxylated commercial paints.