



Press Release

European Coatings Show 2013: 3M presents innovative additives

Excellent Non-stick properties and almost universal chemical resistance

Innovative additives for paints and varnishes in the form of 3M Dyneon PTFE Micropowder or 3M Novec fluorosurfactants are being presented by the Advanced Materials Division of the multi-technology company 3M for the European Coatings Show from 19 to 21 March in Nuremberg (Hall 7, Stand 7-212). The range of products on show will be supplemented by 3M Dyneon PTFE Dispersions and further additives, such as Glass Bubbles and Ceramic Microspheres plus surface finishes for glass and ceramics (Easy Clean Coating).

For over 30 years now, 3M Dyneon PTFE Micropowders used as additives in paints and dyes have been helping to make surfaces non-stick as well as adjusting and setting viscosities independent from temperatures. PTFE Micropowders made by Dyneon GmbH are available in four variants, have excellent non-stick properties and an almost universal chemical resistance. They can be used long-term in a wide temperature range, from -190 °C to +260 °C. In addition, they have a high level of resistance to the effects of weather, especially UV rays.

Recommendations for the use of 3M Dyneon PTFE

Micropowders range, depending on the type used, from coating formulations, through high-temperature fats, waxes and oils to print dyes and anti-friction coatings. In addition, 3M Dyneon PTFE Micropowders are used as additives in a wide variety of plastics to decisively improve their coefficient of friction and surface characteristics.

3M Novec Fluorosurfactants

For ten years now, 3M Novec Fluorosurfactants as additives in paints, varnishes and adhesives have been helping to wet difficult surfaces and prevent defects in covering coatings. In addition to its three tried and tested, non-ionogenic products FC-4430, FC-4432 and FC-4434, 3M now also offers an anionic fluorosurfactant (FC-5120). It is based on ammonium salt, so it is particularly easily soluble in water and thus mainly suitable for aqueous formulations. This spring, a cationic product variant which was specially developed for use in the acid pH range is also to be launched.

Based on C4 technology

All 3M fluorosurfactants are based on C4 technology and are classified as more compatible with regard to the health and safety and environmental protection legislation. 3M was one of eight companies to sign up to the voluntary undertaking to produce short-chain carbon compounds (U.S. EPA 2010/15 PFOA Stewardship Program) and was the first manufacturer to introduce short-chain products back in 2002.

Novec fluorosurfactants can help to reduce surface tension to around 20 mN/m. In comparison, hydrocarbon surfactants, which have to be used in larger quantities, only achieve values of up to 30 mN/m and silicone-based surfactants reach 25 mN/m.

About 3M

3M captures the spark of new ideas and transforms them into thousands of ingenious products. Our culture of creative collaboration inspires a never-ending stream of powerful technologies that make life better. 3M is the innovation company that never stops inventing. With USD 30 billion in sales, 3M employs about 84,000 people worldwide and has operations in more than 65 countries. For more information, visit www.3M.com

About Dyneon

Dyneon, a 3M Company and part of the Advanced Materials Division, is one of the world's leading fluoropolymer producers. Dyneon is focusing on development, production and sales of fluoroelastomers, fluorothermoplastics, Polytetrafluoroethylene (PTFE) and specialty additives, with operations or representation in more than 50 countries through the sales organization of its parent company 3M. For more information please visit www.dyneon.eu

3M and Dyneon are brands of the 3M Company.

Caption:

Dyneon, fig. 1:

3M Dyneon PTFE Micropowder used as an additive in varnishes and paints positively affects their flow and wetting characteristics.

Novec, fig. 1:

The careful aligning of the fluorosurfactant molecules within the target formulation causes the desired reduction in surface tension.

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