

Energy-Saving Coatings

Accoat's primary area of expertise is in fluoropolymer coatings such as Teflon. The company are hoping that the upcoming Copenhagen Climate Summit will attract additional attention to their products and services.

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SP Group company Accoat A/S from Kvistgård, Denmark are focusing their resources on energy and resource saving coating solutions. And when the climate summit, the so-called Cop15, is held in mid-December Accoat will be attending Bright Green – an event held in conjunction with the UN conference.

”We're really looking forward to participating in the Bright Green conference and to promoting our company in a different setting to those we're more used to. It gives us the chance to focus on our energy-saving solutions,” says Managing Director Niels Uhrbrand, and continues:

”We've targeted the energy sector for a number of years now because we know that we can provide them with coatings that can reduce flow-associated and cleaning-associated energy consumption.”

At the same time, the company will be looking to raise awareness of the fact that they are actually a plastics company:

”Plastics are available in all sorts of shapes and colours that are suited to all different sorts of applications; one of the more unusual of which is coatings. There are the standard varieties for home use that most people will be familiar with such as acrylic paint (which uses the same type of polymers as are used in plexiglass) but there are also a number of coatings manufactured from high-end polymers such as PEEK, PPS etc. These coatings' properties make them crucial to certain industries,” explains R&D Laboratory Manager, Susie-Ann Spiegelhauer, and continues:

”Fluoropolymers belong to the group of high-end polymers which we apply for our industrial customers, and which are in use across a wide range of different applications, many of which are energy-saving. The sort of non-stick effect our coatings provide delivers a much better flow thereby reducing energy use.”

”As well as their excellent non-stick attributes fluoropolymers are non-reactive, dielectric, UV-resistant and low-friction and they're stable at much higher temperatures than other types of plastics,” elaborates Susie-Ann Spiegelhauer.

Strength VS flow

There are a wide range of different fluoropolymers, and their properties vary:

”Some fluoropolymers are fully fluorinated, which means that the polymer only features ultra-strong F-C and it's these bonds which generate the sort of properties mentioned above,” says Susie-Ann Spiegelhauer, and continues:

”There's a trade off involved for partially fluorinated fluoropolymers between losing some of their extremely excellent non-stick qualities in order to achieve improvements in other areas, for example the coating's strength.”

Accoat's customers include pharmaceutical companies, the foodstuffs industry, the heavy chemicals

industry and the oil and gas industries – amongst others.

”We can feel the beginnings of an upturn in the industries we work with after the general turndown in 2008 and it's going to be interesting for us as a company to see what sort of level we end up hitting,” concludes Niels Uhrbrand.

Facts:

- Fluoropolymer's qualities (type dependent):
- Non-reactive
- Non-stick
- Low-friction
- Weather-resistant / UV-resistant
- Non-poisonous
- Dielectric
- Capable of withstanding extremes of temperature (-200°C to 260°C)
- Non-combustible

”We're in the process of constructing a new facility in Stoholm, that's specially designed to handle oil pipes which we coat internally. The pipes in the picture are coated with Dupont Streamax – a fluoropolymer-based coating system specially developed for use in oil and gas production pipes,” says Niels Uhrbrand.