

Evonik expands its DYNACOLL® product range; - biobased and flame-retardant polyesters developed

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Evonik Industries has expanded its DYNACOLL® 7000 modular system with the addition of polyester polyols based on renewable raw materials as well as a flame-retardant version.

Sustainable solutions for the adhesives and sealants market.

As the first company Evonik Industries launched a modular system of bio-based polyester polyols for reactive hotmelt adhesives, under the name DYNACOLL® *Terra*. These are the “green” alternatives to the petrochemical polyols, and also expand the property spectrum of the existing product range.

The DYNACOLL® *Terra* range includes nine medium-molecular-weight polyester polyols in which the content of renewable raw materials ranges from more than 30 to 100 percent. As in the case of the petrochemical based grades, this is a modular system consisting of amorphous, liquid, and crystalline grades; their spectrum of viscosities, melting points, and glass transition temperatures determine to a large extent the properties of the formulated PUR hotmelts such as open time, initial strength, and setting time. The bio-based formulations allow the production of reactive hotmelts with properties comparable to those of petrochemically based polyesters; in some cases the products can be even better.

In developing DYNACOLL® *Terra*, Evonik is underscoring its commitment to corporate responsibility and accelerating the trend in the chemical industry toward a greener future.

DYNACOLL® with inherent flame retardancy

A further development in the field of hotmelts concerns the requirements with regards to fire protection. In the past, adhesives formulators were faced with the challenge not just of developing

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reactive hotmelts with the required adhesive properties but also ensuring that they meet the increasing demands on fire protection in various applications. This is achieved by the addition of flame retardants, which, however, often adversely affects the adhesion properties.

Here, Evonik Industries has succeeded in developing a polyester polyol with inherent flame retardancy. The new prototype is pasty polyester of medium molecular weight, which gives the reactive hotmelt a high degree of flexibility. In comparison to additive formulations, adhesives with the new DYNACOLL® grade have much better adhesion properties and improved chemical resistance. A corresponding patent application has already been filed.

Further information and samples are available from Global Technical Service at +49 2365 49 4534, or from adhesives@evonik.com.

Company information

Evonik, the creative industrial group from Germany, is one of the world leaders in specialty chemicals. Profitable growth and a sustained increase in the value of the company form the heart of Evonik's corporate strategy. Its activities focus on the key megatrends health, nutrition, resource efficiency and globalization. Evonik benefits specifically from its innovative prowess and integrated technology platforms.

Evonik is active in over 100 countries around the world. In fiscal 2013 more than 33,500 employees generated sales of around €12.7 billion and an operating profit (adjusted EBITDA) of about €2.0 billion.

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