

KRATON INNOVATION CONTRIBUTES TO SUSTAINABLE ADHESIVES

ABSTRACT

Sustainability has become a key driver for the adhesive industry. Once considered a “nice to have” feature, sustainability is increasingly valued by both adhesives producers, consumer goods manufacturers and end-users. Consumers are becoming more informed about where and how their products are made, and they increasingly include sustainability as part of their purchasing criteria. As adhesives are used in a range of everyday materials, consumer demand will continue to elevate the need for sustainable products. Companies that can meet these expectations will cement their leadership position within the industry as the supplier of choice. Globally, the need for a biobased economy is acknowledged and several certification schemes have been developed, allowing for independent assessment of claims on a product’s biobased content.

While using biobased material helps formulators achieve aspects of sustainability, raw material suppliers must deliver high performance with consistent quality, enhanced functionality, lighter color and stability – all of which are key to addressing market needs. With

demonstrated performance benefits, opportunities exist for adhesive producers to leverage biobased materials to reach sustainability goals.

Biobased materials, such as rosin esters, deliver excellent adhesion to a large range of substrates due to their polarity and polymer compatibility. Low molecular weight and narrow molecular weight distribution – combined with a cycloaliphatic and aromatic structure – make biobased rosin esters among the most broadly compatible of all adhesive tackifiers. Rosin ester is a major component used in hot-melt adhesive formulations. Rosin esters with improved viscosity stability and color stability will enable formulators of ethylene vinyl acetate (EVA)-based hot-melt adhesives to deliver better thermal stability, allowing hassle free operation.

Kraton’s next generation of rosin esters offer excellent bonding strength, significantly lighter color and high stability, providing adhesive formulators with a new choice of high-performance biobased tackifier.