



# Product Digest

this month's topic **Materials**

## Dry Emulsifiers Provide Performance and Efficiency



The XPLOR line of dry emulsifiers combine performance with operational benefits, such as increased efficiency and lower total-use costs. They are appropriate for use in diesel fuel and in mineral oil or synthetic drilling fluids. They are compatible with a variety of solvents,

which eliminates the need for multiple types of emulsifiers. The dry formulation is shipped in 25-lb bags that are easier to pour than traditional liquid barrels. As a result, dosing is more precise, and drum transportation, cleaning, and disposal costs are eliminated. Because this product has a higher activity level, users are also able to treat drilling fluids with less emulsifier than would be necessary with liquid emulsifiers. Furthermore, the emulsifier has minimal resistance to flow, which makes it suitable for temperatures below freezing.

**Georgia-Pacific**  
[www.gp.com](http://www.gp.com)

## Color-Changing Additive Signifies Temperature



Thermochromic color concentrate pellets indicate the let-down ratio and temperature of plastics with vibrant, UV- and heat-stable color. PowerCapsules can be used in polypropylene (PP), high-density polyethylene (HDPE), polystyrene (PS), and polyethylene (PE) products. This

technology enhances the consumer's experience and helps to meet the demand for thermochromic plastics that contain no bisphenol A (BPA). The capsules have more energy per capsule than similar technologies, which produces a stronger color indication or allows the use of less indicator. With the addition of color capsules, plastic packaging or other materials can be made safer and more useful.

**Chromatic Technologies, Inc.**  
[www.ctiinks.com](http://www.ctiinks.com)

## Enzyme Solution Saves Resources

As the name suggests, Medley is an enzyme solution that contains a combination of enzyme activities, which simplifies production and saves money for small and mid-size detergent producers. Users can reduce their working capital by narrowing their enzyme supply to just one broad solution. With multiple enzyme activities, detergent producers may be able to produce an efficient detergent with fewer chemicals. The formulation is available in five different versions that are tailored to regional needs. Medley is targeted primarily at the liquid formulation market, but with multiple versions that tackle various regional requirements, it may also be used for powder detergents.

**Novozymes**  
[www.novozymes.com](http://www.novozymes.com)

## Water Scavenger Protects Silane-Curing Adhesives



Because silane-curing adhesives and sealants react readily with water, a water scavenger is an essential component to protect the polymers from moisture inherent in

some fillers and other ingredients. One such water scavenger is the arylalkoxysilane monomer Geniosil XL 70, a clear, colorless, low-viscosity silane. With only a faint odor, this additive is appropriate for adhesives and sealants that will be used over large areas, which helps to meet increasingly stringent occupational health and safety regulations. Additionally, a high flashpoint (96°C) makes this product safer and easier to handle and store.

**Wacker Chemie AG**  
[www.wacker.com](http://www.wacker.com)

## Carbon Black Formulations Have Diverse Applications

Five carbon black products are available for pressure pipe, wire and cable, and conductive products applications. For gas and water distribution systems, Printex zeta A has a high chemical purity and a high degree of cleanliness to minimize taste and odor effects. XPB 552 has conductive and anti-static properties, making it suitable for electronics packaging. The high specific surface area, structure level, and cleanliness of XPB 538 help it to achieve higher conductivity at lower loading levels than other conductive carbon blacks. Arosperse 5-183A is a soft-beaded furnace black with low values of sulfur impurities and sieve residues for use in semi-conductive insulation shields for

medium-voltage cables. The final new offering is Printex HV, a high-performance grade for use in high-voltage cables. It features high cleanliness and dispersability, and imparts excellent surface smoothness and high conductivity to semi-conductive compounds.

**Orion Engineered Carbons, LLC**

[www.orioncarbons.com](http://www.orioncarbons.com)

### Compatibilizer Enhances Plastic Performance

XERAN copolymers and terpolymers have maleic anhydride functionality, which makes them suitable as compatibilizers and coupling agents in various applications. The materials improve the adhesion between two polymers that would normally be immiscible. Additionally, they optimize the interfacial tension and offer stabilization of the morphology against high stresses during conversion. This results in significant improvement of the mechanical properties, predominantly impact performance. Because the polymers are styrene based, they are particularly suited for compatibilizing styrene-based engineered plastics. The portfolio of products includes polymers with varying molar masses and maleic anhydride functionality.

**Polyscope**

[www.polyscope.eu](http://www.polyscope.eu)

### Catalyst Support Silica Can Be Customized



Sunspera is a fine silica catalyst support for applications related to cosmetics, films, and synthetic fabrics, as well as a matting agent for paints and as a filler for coated printing papers. It

has a precisely designed pore structure, spherical shape, and size distribution that enhance finished polymer resins and optimize productivity. Customers can select a sphere size, pore size, and spherical structure that meets their functional needs. Mean particle diameters from 1.8  $\mu\text{m}$  to 200  $\mu\text{m}$  and surface areas from 40  $\text{m}^2/\text{g}$  to 800  $\text{m}^2/\text{g}$  are available.

**InformEx**

[www.informex.com](http://www.informex.com)

### Frizz-Control Solution Performs Well in Humidity

A fluid for water-based hair-care formulations called CB-3046 provides powerful frizz-taming control without the heavy feel and styling difficulties associated with oil-based



anti-frizz solutions. It enhances hair alignment, increases shine, and protects against heat. The fluid enables customers to formulate water-based leave-in frizz-control products that perform

better than similar water-based and traditional anhydrous offerings, and without the typical heavy and greasy feel. The fluid performed well in tests at high humidity levels. This product meets the increased market demand for frizz-control solutions in various geographies and across ethnicities and hair types.

**Dow Corning**

[www.dowcorning.com](http://www.dowcorning.com)



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