

# Solving the Synthetic Cold Seal Conundrum

**Formulated with a new synthetic elastomer platform, easy-to-use Coseal™ 55-300 cold seal adhesive systems give customers superior performance at excellent cost.**

Given a personal choice, do you prefer natural or synthetic? For feeding your family, natural products get the nod. However, when choosing cold seal adhesives for food packaging, deciding isn't straightforward.

Cold seal adhesives – low-temperature, environmentally friendly adhesives that seal to themselves with pressure – are formulated by combining an adhesive component with an elastomer such as rubber, which is derived from rubber latex. While familiar and undeniably natural, rubber can be a fickle elastomer with finicky characteristics. As a natural substance derived from the heavea brasiliensis tree, the material's particle size varies widely. Formulators must produce rubber-containing cold seal agents cautiously to ensure mechanical stability. Additionally, supply is uncertain and latex can cause an allergic reaction in sensitive people.

Coseal™ Coming  
Attractions

Improved Synthetic Elastomer  
Debuts

Therefore, a synthetic cold seal

A busy calendar lies ahead for Coseal cold seal adhesives.

While Coseal adhesives are available only in North America now, Rohm and Haas will introduce the products to European converters soon. “European films are slightly different than those favored in North America, so we are testing Coseal thoroughly on typical European cold seal structures,” Smith notes. Following the European debut, Coseal adhesives soon will be available worldwide.

Rohm and Haas sees opportunities for these innovative products in the medical packaging market and for industrial applications like protective foam for furniture and disposable napkin rings. Accordingly, the company will expand the promising technology platform in the future.

would seem a better choice since synthetic elastomers seem infinitely preferable in comparison, but they haven’t escaped difficulties either. For example, synthetics like styrene butadiene rubber and polychloroprene don’t cold flow as well as natural rubber latex, leading to caulking and sealing dilemmas. They have a different odor as well, and present an unusual “zippery” peel.

So, natural or synthetic? As a converter, which cold seal would you choose to securely package moisture-sensitive and oxygen-sensitive candy bars, ice cream, and gummy snacks? Which offers the excellent cling that enhances production, and the cohesion that safeguards delicious taste and texture during storage? Rohm and Haas has greatly simplified the options for those who elect synthetic systems. New Coseal™ 55-300 adhesive, based on an innovative new synthetic cold seal elastomer and now available in North America, offers exciting advances over competing synthetic possibilities.

### Rigorous Testing Ensures Excellent Productivity

“We specifically developed Coseal 55-300 adhesive to overcome two major obstacles that have long plagued converters of moisture-sensitive and oxygen-sensitive packaging,” comments Nancy Smith, North American market manager for packaging and converting. “For converters who rely on natural rubber, this product provides a significant improvement in sealing performance. And, for converters already using a synthetic cold seal adhesive, new Coseal 55-300 provides a new, lower priced, higher performance synthetic

alternative.” The product, which has excellent adhesion to metallized and white OPP films, facilitates fast line speeds and greater productivity.

Rohm and Haas specialists put the new product, which is fully FDA-certified for direct food contact, through its paces before introduction in order to reduce manufacturing difficulties. With a full-size pilot coater in house, Rohm and Haas has the unique ability to fully test the product’s actual converting profile internally.

#### Excellent Product, Performance, and Price

Strict trials on the company’s state-of-the-art coater ensured that customers experienced fewer problems such as blocking. A particular challenge with cold seal technologies, blocking occurs when softer, tackier synthetic elastomers like styrene butadiene rubber resist unwind in a converted roll. The problem may occur despite release films or lacquers and can lead to pick off, in which the cold seal transfers from the substrate to the release film. Rohm and Haas rigorously tested Coseal 55-300 adhesive under humid, hot conditions to ensure that blocking was less likely. New product benefits complement the traditional advantages of cold seal technology, like low temperatures to shield sensitive foodstuffs and no odors that change taste or aroma.

With such a favorable profile, the product’s very competitive cost is an added selling point. “We believe it’s not only the best synthetic cold seal product on the market, but the most economical alternative as well,” says Smith, who presented cold seal technology and specific product information recently at the Association of Industrial Metallizers, Coaters and Laminators conference as well as the Converting and Package Printing Expo.

Natural or synthetic? If you choose synthetic, Rohm and Haas just introduced a better answer with Coseal 55-300 adhesive.