

CUSTOM PLASTICIZERS FOR NBR FUEL AND OIL APPLICATIONS

APPLICATION CHALLENGE

Nitrile butadiene rubber (NBR) is an excellent polymer for fuel and oil applications such as fuel hoses, seals, gaskets and O-rings. However, achieving the best performance for these applications requires meeting highly specific requirements. Potential compound requirements include:

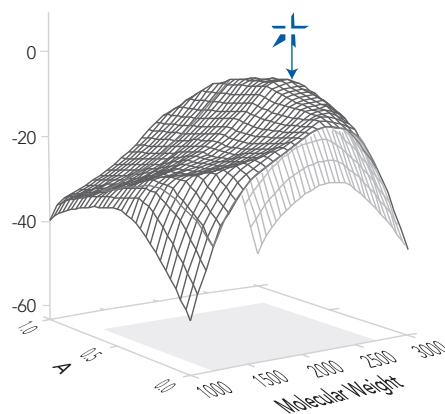
- Low Volatility
- Air Oven Elongation Change
- Air Oven Tensile Change
- Oil Extraction Resistance
- Fuel Resistance

HALLSTAR SOLUTION

Hallstar's Paraplex Approach is a proprietary molecular design system that creates custom-engineered plasticizers for unique, tightly defined requirements. The Paraplex Approach uses three-dimensional response surface diagrams as well as existing performance data and application knowledge. With this targeted approach, raw materials can be rapidly adjusted to determine the best possible combination of properties for the application. Paraplex® brand customized formulations are the industry benchmark for high performance, innovative plasticizers.

THE PARAPLEX APPROACH

The illustration shows the optimized chemical composition of a custom-designed plasticizer. The star indicates the optimal solution point for the application.



Hallstar works collaboratively with companies around the world to create and enhance next-generation products.

Hallstar's expertise in polymer modification and optimization, coupled with our application knowledge across a wide range of industrial products, is unique in the specialty chemical industry. Our ability to create tailored solutions with esters—including phthalate replacement—is based on years of esterification experience.

LET'S WORK WONDERS™

