



SURPASS® Resins

For Rotational Molding

NOVA Chemicals has developed novel, world class catalyst & reaction technologies to create innovative, industry leading resins designed specifically for the needs of rotational molders. Developed with Advanced SCLAIRTECH™ technology, SURPASS® solution-phase resins set the new standard for performance in the polyethylene rotational molding market. SURPASS® provides a unique combination of properties not found in traditional resins.

Our breakthrough SURPASS® RMs245-U, RMs341-U, and RMs539-U resins set a new standard for high performance in processing flexibility and impact performance in High-Density Polyethylene (HDPE) and Medium Density Polyethylene (MDPE) materials. SURPASS® RMs245-U, RMs341-U, and RMs539-U resins are manufactured using NOVA Chemicals Advanced SCLAIRTECH process technology in combination with NOVA Chemicals' proprietary single-site catalyst technology and features a unique molecular architecture permitting significant improvements in cycle time, processing window breadth and balance of physical properties.



Key Benefits

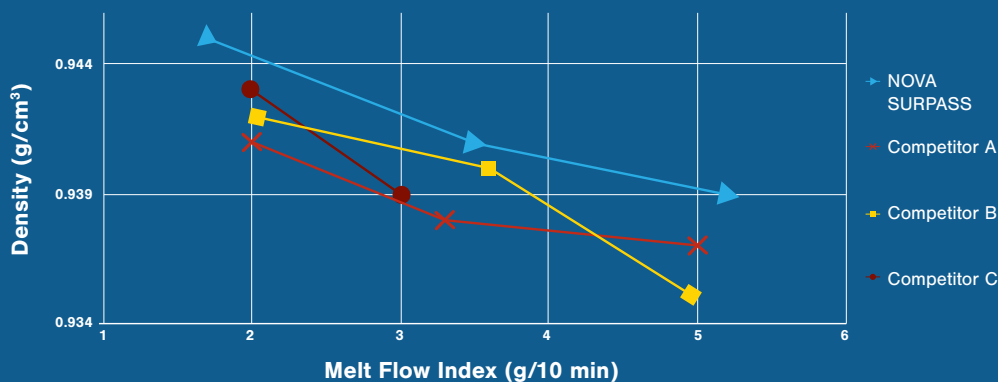
- Higher stiffness than achieved at an equivalent MI due to higher density, which improves strength and toughness allowing light weighting
- Resin versatility allows consolidation, leading to reduced supply chain costs, complexity, and working capital requirements
- Fast densification creates faster cycle times and a broader process window improving plant productivity and lowering energy costs
- Additional benefits include optimized mold release for lower warpage and controlled shrinkage, superior whiteness, and UV weatherability



Spotlight

SURPASS
performance

resins provide higher density and stiffness at similar melt flows as standard hexene resins.





CASE STUDY

Heavy Duty Storage Tank Manufacturer Selects SURPASS® RMs341-U Resin

The benefits of SURPASS® RMs341-U resin have been leveraged by a North American heavy duty storage tank producer. NOVA Chemicals' technical service team members worked closely with the rotational molder to engineer the best solution for the converter and the end-user.

The end result is a tank that takes 15% less cycle time, has increased stiffness, toughness and inherent base whiteness than a tank made with a competitive material.

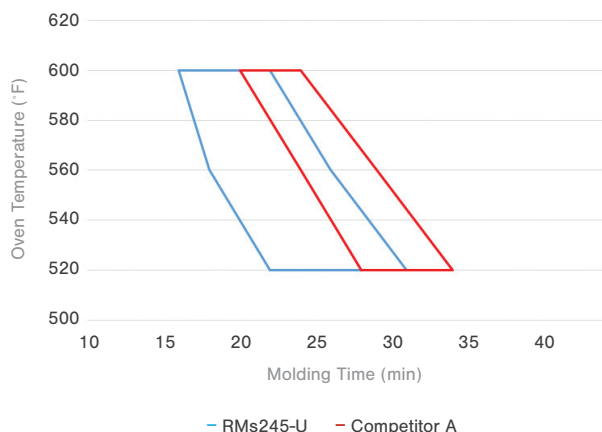
DID YOU KNOW?

SURPASS rotomolding resins cycle faster at lower oven operating temperatures, have higher productivity and less scrap than standard resins.

SURPASS® rotomolding resins deliver improved stiffness, toughness and processibility.

SURPASS® resins allow molders to expand into applications that are currently being designed with other engineering materials as well as enable successful entry into new markets.

Process Window Based on ARM Impact



Stiffness vs Melt Index

With similar impact strength at each melt index

