SURPASS™ polyethylene

NOVA Chemicals

Product Information Sheet

RMs539-U/UG

High-flow rotational molding resins with an excellent balance of properties for custom applications.

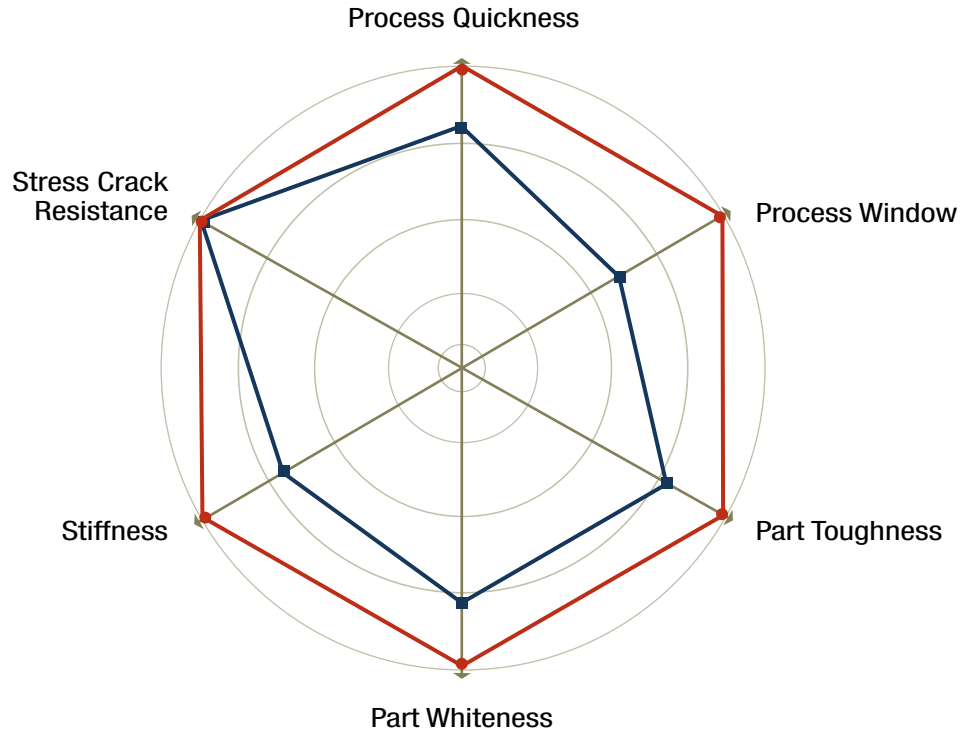
Features and Benefits

- Exceptional processability, resulting in:
  - Ability to mold parts with intricate details or multiple inserts
  - Reduced cycle times vs. resins of a similar melt index
  - Energy savings – ability to process at lower oven temperatures
- Wider processing window, resulting in:
  - Greater production and design flexibility
  - Reduction in scrap rates
- Excellent balance of stiffness and toughness for improved light weighting and impact resistance
- Superb whiteness, part appearance and easy demolding

Applications

- OEM custom and proprietary components
- Marine products
- Recreational and leisure equipment

Melt Index	5.2
Density	0.939



Points farthest from the center of the chart represent best performance.

The combination of properties translates into parts with stronger walls or equivalent thickness or thinner walls with equivalent strength, allowing the molder to extend the range of products that can be made. With excellent ESCR, products manufactured with this resin can be relied upon to contain aggressive chemicals for extended periods of time and still maintain excellent physical properties.

Rotational Molding

RMs539-U/UG

SURPASS Octene sMDPE Rotational Molding Resin

Properties	ASTM [1]	Units	Typical Values [2]	
			SURPASS RMs539-U/UG Resin	Benchmark Hexene Resin
Goal Melt Index [3]	D1238	g/10 min	5.2	5
Goal Density [3]	D792	g/cm^3	0.939	0.935
Vicat Softening Point [3]	D1525	˚C (˚F)	121 (250)	115 (239)
Heat Deflection Temperature (66 psi) [3]	D648	˚C (˚F)	60 (140)	52 (126)
Heat Deflection Temperature (264 psi) [3]	D648	˚C (˚F)	42 (108)	41 (106)
Shore D Hardness [3]	D2240	-	62	61.7
ESCR CTL [3]	ARM Method	h	>50	>50
Bent Strip ESCR (Condition B) [3]	D1693	h	>1000	>1000
ARM Impact Strength (-40˚C) [4]	ARM Method	J (ft-lb)	244 (180)	163 (120)
Tensile Strength @ Yield (50 mm/min) [4]	D638	MPa (psi)	19.9 (2900)	16.6 (2400)
Tensile Strength @ Break (50 mm/min) [4]	D638	MPa (psi)	26.2 (3800)	23.5 (3408)
Tensile Elongation @ Break (50 mm/min) [4]	D638	%	870	900
1% Flexural Secant Modulus [4]	D790	MPa (psi)	830 (120 380)	600 (87 025)
Yellowness Index (minimum cure time) [4]	E313	-	-15	-11
Whiteness Index (minimum cure time) [4]	E313	-	86	74

[1] Properties designated have been determined in accordance with the current issues of the specified testing methods. Methods of the American Society for Testing and Materials (ASTM) are used wherever applicable.

[2] Typical values represent average laboratory values and are intended as guides only and not as specifications.

[3] Pellet/plaque data.

[4] Rotomolded part data, 0.250" thickness.

www.SURPASSresins.com

U.S. Operating Center
NOVA Chemicals Inc.
1550 Coraopolis Heights Road
Moon Township, PA 15108
United States of America

Phone 412.490.4000
Toll Free 800.222.7213
Fax 412.494.4861

Canadian Sales Office
NOVA Chemicals Corporation
Suite 200
6711 Mississauga, Ontario
Canada L5N 2W3

Phone 905.542.3338
Toll Free 800.268.2507
Fax 905.542.8075

European Operating Center
NOVA Chemicals (International) S.A.
Avenue de la Gare 12
1700 Fribourg
Switzerland

Phone 41.26.426.56.56
Fax 41.26.426.56.57

Technical Center
NOVA Chemicals Technical Centre
3620 – 32 Street N.E.
Calgary, Alberta
Canada T1Y 6G7

Phone 403.291.8444
Fax 403.291.0493

Headquarters
NOVA Chemicals Corporation
1000 Seventh Avenue S.W.
Calgary, Alberta
Canada T2P 5L5

Phone 403.750.3600
Fax 403.269.7410