SURPASS® RMs539-U(UG)

NOVA Chemicals - Linear Low Density Polyethylene

Tuesday, November 5, 2019

General Information

General			
Material Status	• Commercial: Active		
Availability	• North America		
Additive	• Antioxidant	• UV Stabilizer	
Features	• Antioxidant • Copolymer • Fast Molding Cycle • Food Contact Acceptable • Good Mold Release	• Good Processability • Good Stiffness • Low Density • Low Temperature Impact Resistance • Low Viscosity	• Octene Comonomer • Pleasing Surface Appearance • UV Stabilized
Uses	• Containers • Marine Applications	• Septic Tanks • Sporting Goods	
Agency Ratings	• FDA 21 CFR 176.170(c), Table 2, Cond. B • FDA 21 CFR 176.170(c), Table 2, Cond. C • FDA 21 CFR 176.170(c), Table 2, Cond. D • FDA 21 CFR 176.170(c), Table 2, Cond. E	• FDA 21 CFR 176.170(c), Table 2, Cond. F • FDA 21 CFR 176.170(c), Table 2, Cond. G • FDA 21 CFR 176.170(c), Table 2, Cond. H • FDA 21 CFR 177.1520(c) 3.2a	• NSF STD-24 • NSF STD-51 • NSF STD-61
Forms	• Pellets		
Processing Method	• Compression Molding	• Rotational Molding	

ASTM & ISO Properties [1]

Physical	Nominal Value	Unit	Test Method
Density	0.939	g/cm³	ASTM D792
Melt Mass-Flow Rate (190°C/2.16 kg)	5.2	g/10 min	ASTM D1238
Environmental Stress-Cracking Resistance (ESCR)			
122°F, 100% Igepal, Compression Molded, F50	> 1000	hr	ASTM D1693A
122°F, 100% Igepal, Compression Molded, F50	> 1000	hr	ASTM D1693B
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Strength [2]			ASTM D638
Yield, 0.0748 in, Compression Molded	2900	psi	
Tensile Elongation [2]			ASTM D638
Yield, 0.0748 in, Compression Molded	13	%	
Flexural Modulus - 1% Secant (Compression Molded)	113000	psi	ASTM D790
Impact	**Nominal Value**	**Unit**	**Test Method**
Low Temperature Impact - Rotational Molded			ARM
-40°F, 0.13 in	39.8	ft·lb	
-40°F, 0.25 in	170	ft·lb	
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load			ASTM D648
66 psi, Unannealed, Compression Molded	140	°F	
Deflection Temperature Under Load			ASTM D648
264 psi, Unannealed, Compression Molded	108	°F	

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Thermal	Nominal Value	Unit	Test Method
Melting Temperature	257	°F	DSC
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating	HB		UL 94

Notes

[1] Typical properties: these are not to be construed as specifications.

[2] Type IV, 2.0 in/min