DuraStar™ DS1900HF

PCTA — Eastman Chemical Co.

Product Texts

Durastar™ DS1900HF polymer is a high flow grade of Durastar™ . Durastar™ DS1900HF flow lengths are increased 20-40% relative to Durastar™ DS1000 as shown by spiral flow testing. Other outstanding features of Durastar™ are easily maintained such as excellent appearance and clarity, good physical properties, chemical resistance, and easy processing. This high flow product is especially suited for those applications utilizing thinwalled intricate tools. Under existing United States Food and Drug Administration (FDA) regulations, Durastar™ DS1900HF may be used in food contact articles which comply with the specifications and conditions of use in 21 CFR 177.1240.

Processing/Physical Characteristics	Value	Unit	Test Standard
ASTM Data			
Mold Shrinkage, MD	**0.003**	mm/mm	ASTM D 955

Mechanical properties	Value	Unit	Test Standard
ASTM Data			
Tensile Strength at Yield	**50**	MPa	ASTM D 638
Tensile Strength at Break	**43**	MPa	ASTM D 638
Elongation at Yield	**5**	%	ASTM D 638
Elongation at Break	**270**	%	ASTM D 638
Flexural Modulus	**1900**	MPa	ASTM D 790
Rockwell Hardness	**107**	-	ASTM D 785
Izod Impact notched, 1/8 in	**80.1**	J/m	ASTM D 256
Izod Impact notched, Low-Temperature	**44**	J/m	ASTM D 256
Temperature	**-40**	°C	-
Izod Impact unnotched, 1/8 in	**N**	J/m	ASTM D 256

Thermal properties	Value	Unit	Test Standard
ASTM Data			
DTUL @ 66 psi	**73**	°C	ASTM D 648
DTUL @ 264 psi	**66**	°C	ASTM D 648
Vicat Temperature	**86**	°C	ASTM D 1525

Optical properties	Value	Unit	Test Standard
ASTM Data			
Haze	**1**	%	ASTM D 1003
Light Transmittance	**92**	%	ASTM D 1003

Other properties	Value	Unit	Test Standard
Water Absorption, 24hr	**0.15**	%	ASTM D 570
Density	**1190**	kg/m³	ASTM D 792

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	**70**	°C	-
Pre-drying - Time	**4**	h	-
Melt temperature	**230 - 280**	°C	-
Mold temperature	**15 - 30**	°C	-

Characteristics

Processing

Injection Molding

Certifications

Food contact, Food approval FDA 21 CFR

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Delivery form
Natural Color

Special Characteristics
High impact or impact modified, Transparent

Chemical Resistance
General Chemical Resistance

Applications
Packaging, Sports Equipment

Regional Availability
North America