

DuraStar™ DS1110UVI

Thermoplastic Polyester
Eastman Chemical Company

Message:

Durastar™ DS1110UVI polymer, contains an ultraviolet light stabilization package. It is recommended for indoor applications requiring enhanced color stability upon extended exposure to fluorescent light. It has excellent appearance and is nearly water-clear. Its other most outstanding features are chemical resistance and excellent processing characteristics. Easy to process, it flows readily, fills intricate molds, contains a mold release, and is well suited for thick-wall applications.
This product is certified to ANSI/NSF Standard 51.

General Information			
Additive	Mold Release		
	UV Stabilizer		
Features	Fast Molding Cycle		
	Good Chemical Resistance		
	Good Color Stability		
	Good Flow		
	Good Impact Resistance		
	Good Mold Release		
	Good Processability		
	Good UV Resistance		
	High Clarity		
	Pleasing Surface Appearance		
Uses	Appliance Components		
	Appliances		
	Flooring Maintenance/Repair		
	Furniture		
	Household Goods		
	Sporting Goods		
	Thick-walled Parts		
Agency Ratings	NSF 51		
	Natural Color		
	Pellets		
	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity			
--	1.20	g/cm³	ASTM D792

23°C	1.19	g/cm ³	ISO 1183
Molding Shrinkage - Flow (3.20 mm)	0.20 to 0.60	%	ASTM D955
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale, 23°C)	103		ASTM D785
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus (23°C)	1800	MPa	ISO 527-2
Tensile Strength			
Yield, 23°C	47.0	MPa	ASTM D638, ISO 527-2
Break, 23°C	51.0	MPa	ASTM D638
Break, 23°C	46.0	MPa	ISO 527-2
Tensile Elongation			
Yield, 23°C	5.0	%	ASTM D638
Yield, 23°C	4.0	%	ISO 527-2
Break, 23°C	300	%	ASTM D638
Break, 23°C	200	%	ISO 527-2
Flexural Modulus			
23°C	2000	MPa	ASTM D790
23°C	1850	MPa	ISO 178
Flexural Stress			
23°C	65.0	MPa	ISO 178
Yield, 23°C	69.0	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact			
-40°C	40	J/m	ASTM D256
23°C	80	J/m	ASTM D256
-40°C	4.8	kJ/m ²	ISO 180
23°C	7.8	kJ/m ²	ISO 180
Unnotched Izod Impact			ASTM D4812
-40°C	No Break		
23°C	No Break		
Instrumented Dart Impact			
-40°C, Energy at Peak Load	48.0	J	ASTM D3763
23°C, Energy at Peak Load	42.0	J	ASTM D3763
-40°C, Energy to Peak Force	52.6	J	ISO 6603-2
23°C, Energy to Peak Force	58.7	J	ISO 6603-2
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, Unannealed	75.0	°C	ASTM D648
0.45 MPa, Unannealed	72.0	°C	ISO 75-2/B
1.8 MPa, Unannealed	65.0	°C	ASTM D648
1.8 MPa, Unannealed	66.0	°C	ISO 75-2/A
Optical	Nominal Value	Unit	Test Method

Transmittance			ASTM D1003
Total	91.0	%	
Regular	89.0	%	
Haze	0.30	%	ASTM D1003
Injection	Nominal Value	Unit	
Drying Temperature	70.0	°C	
Drying Time	3.0	hr	
Processing (Melt) Temp	230 to 280	°C	
Mold Temperature	15.0 to 30.0	°C	

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