

Product Texts

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.

Processing/Physical Characteristics	Value	Unit	Test Standard
ASTM Data			
Mold Shrinkage, MD	0.004	mm/mm	ASTM D 955
Mechanical properties			
ISO Data			
Tensile Modulus	1800	MPa	ISO 527
Yield stress	47	MPa	ISO 527
Yield strain	4	%	ISO 527
Stress at break	46	MPa	ISO 527
Strain at break	200	%	ISO 527
Flexural modulus, 23°C	1850	MPa	ISO 178
Flexural strength	65	MPa	ISO 178
Izod notched impact strength, +23°C	7.8	kJ/m ²	ISO 180/1A
Izod notched impact strength	4.8	kJ/m ²	ISO 180/1A
Temperature	-40	°C	-
Puncture energy, +23°C	58.7	J	ISO 6603-2
ASTM Data			
Tensile Strength at Yield	47	MPa	ASTM D 638
Tensile Strength at Break	51	MPa	ASTM D 638
Elongation at Yield	5	%	ASTM D 638
Elongation at Break	300	%	ASTM D 638
Flexural Modulus	2000	MPa	ASTM D 790
Rockwell Hardness	103	-	ASTM D 785
Izod Impact notched, 1/8 in	80.1	J/m	ASTM D 256
Izod Impact notched, Low-Temperature	40	J/m	ASTM D 256
Temperature	-40	°C	-
Izod Impact unnotched, 1/8 in	N	J/m	ASTM D 256
Thermal properties			
ISO Data			
Temp. of deflection under load, 1.80 MPa	66	°C	ISO 75-1/-2
Temp. of deflection under load, 0.45 MPa	72	°C	ISO 75-1/-2
ASTM Data			
DTUL @ 66 psi	75	°C	ASTM D 648
DTUL @ 264 psi	65	°C	ASTM D 648
Optical properties			
ASTM Data			
Haze	0.3	%	ASTM D 1003
Light Transmittance	91	%	ASTM D 1003
Other properties			
Density	1190	kg/m ³	ISO 1183
Density	1200	kg/m ³	ASTM D 792

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	70	°C	-
Pre-drying - Time	3	h	-
Melt temperature	230 - 280	°C	-
Mold temperature	15 - 30	°C	-

Characteristics

Processing

Injection Molding

Delivery form

Natural Color

Additives

Release agent

Special Characteristics

High impact or impact modified, Light stabilized or stable to light, U.V. stabilized or stable to weather, Transparent

Features

Color Stability

Chemical Resistance

General Chemical Resistance

Certifications

Food contact, Food approval NSF 51

Applications

Packaging, Sports Equipment

Regional Availability

North America, Europe, Asia Pacific, South and Central America, Near East/Africa