

Product Texts

Durastar™ Polymer MN611 has been tested for FDA/ISO 10993 and USP Class VI Biological Evaluation testing after Gamma and EtO sterilization. It contains a mold release to improve ejection. It has excellent appearance and is nearly water-clear. Benefits include toughness, chemical resistance, and excellent processing characteristics. MN611 has very good toughness.

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	-
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			
ASTM Data			
DTUL @ 66 psi	74	°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	1200	kg/m ³	ASTM D 792
Processing Recommendation Injection Molding			
Pre-drying - Temperature	71	°C	-
Pre-drying - Time	3 - 4	h	-
Melt temperature	232 - 277	°C	-
Mold temperature	16 - 38	°C	-

Characteristics**Processing**

Injection Molding

Delivery form

Natural Color

Additives

Release agent

Special Characteristics

Transparent, Sterilizable, Ethylene Oxide (EtO) Sterilization, Gamma irradiation sterilization

Features

Color Stability

Chemical Resistance

General Chemical Resistance, Solvent Resistance, Radiation Resistance

Certifications

Food contact, Food approval FDA 21 CFR, Medical Grade, Biocompatibility ISO 10993, US Pharmacopeia Class VI Approved

Applications

Medical

Regional Availability

North America, Europe, Near East/Africa