

**Product Texts**

DuraStar™ Polymer MN631 has been tested for FDA/ISO 10993 and USP Class VI Biological Evaluation testing after Gamma and EtO sterilization. It contains a mold release. It has excellent appearance and is nearly waterclear.

Its most outstanding features are toughness, chemical resistance, and excellent processing characteristics.

MN631 has very good toughness. Easy to process with minimal drying time, it flows readily and fills the most intricate tools.

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

Mechanical properties	Value	Unit	Test Standard
<b>ASTM Data</b>			
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
<b>ASTM Data</b>			
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
<b>ASTM Data</b>			
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/m <sup>3</sup>	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

**Chemical Resistance**

General Chemical Resistance, Solvent Resistance, Radiation Resistance

**Delivery form**

Natural Color

**Additives**

Release agent

**Special Characteristics**

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

**Features**

Color Stability

**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