

CYROLITE® G20-100

PMMA

Evonik CYRO LLC

Processing/Physical Characteristics	Value	Unit	Test Standard
ASTM Data			
Melt Flow Index, MFI	2.6	g/10min	ASTM D 1238
Temperature	230	°C	-
Load	5	kg	-
Mold Shrinkage, MD	0.0055	mm/mm	ASTM D 955

Mechanical properties	Value	Unit	Test Standard
ASTM Data			
Tensile Modulus	2200	MPa	ASTM D 638
Tensile Strength	46.9	MPa	ASTM D 638
Elongation at Yield	4	%	ASTM D 638
Elongation at Break	9.5	%	ASTM D 638
Flexural Modulus	2300	MPa	ASTM D 790
Flexural Strength	72.4	MPa	ASTM D 790
Rockwell Hardness	M 39	-	ASTM D 785
Izod Impact notched, 1/4 in	101	J/m	ASTM D 256
Izod Impact notched, Low-Temperature	59	J/m	ASTM D 256
Temperature	0	°C	-

Thermal properties	Value	Unit	Test Standard
ASTM Data			
UL 94 Flame rating	HB	-	UL 94
Coefficient of Thermal Expansion, MD	92.5	E-6/K	ASTM D 696
Vicat Temperature	101	°C	ASTM D 1525

Optical properties	Value	Unit	Test Standard
ASTM Data			
Haze	5	%	ASTM D 1003
Light Transmittance	89	%	ASTM D 1003

Other properties	Value	Unit	Test Standard
Water Absorption, Equilibrium	0.3	%	ASTM D 570
Density	1110	kg/m ³	ASTM D 792

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	80	°C	-
Pre-drying - Time	3 - 4	h	-
Melt temperature	204 - 246	°C	-
Mold temperature	49 - 82	°C	-
Zone 1	193 - 224	°C	-
Zone 2	204 - 238	°C	-
Zone 3	204 - 246	°C	-
Nozzle temperature	204 - 246	°C	-
Injection pressure	69 - 138	MPa	-
Back pressure	0 - 0.69	MPa	-

Characteristics**Processing**

Injection Molding

Special Characteristics

Transparent

Certifications

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

Applications

Medical

Chemical Resistance

General Chemical Resistance, Radiation Resistance

Regional Availability

North America