

CYROLITE® Protect 2

PMMA

Evonik CYRO LLC

Processing/Physical Characteristics	Value	Unit	Test Standard
ASTM Data			
Melt Flow Index, MFI	2.5	g/10min	ASTM D 1238
Temperature	230	°C	-
Load	5	kg	-
Mold Shrinkage, MD	0.006	mm/mm	ASTM D 955

Mechanical properties	Value	Unit	Test Standard
ASTM Data			
Tensile Modulus	1800	MPa	ASTM D 638
Tensile Strength	40.3	MPa	ASTM D 638
Elongation at Yield	4	%	ASTM D 638
Elongation at Break	17	%	ASTM D 638
Flexural Modulus	1900	MPa	ASTM D 790
Flexural Strength	61	MPa	ASTM D 790
Rockwell Hardness	M 33	-	ASTM D 785
Izod Impact notched, 1/4 in	91	J/m	ASTM D 256

Thermal properties	Value	Unit	Test Standard
ASTM Data			
UL 94 Flame rating	HB	-	UL 94
Coefficient of Thermal Expansion, MD	86	E-6/K	ASTM D 696
Vicat Temperature	94	°C	ASTM D 1525

Optical properties	Value	Unit	Test Standard
ASTM Data			
Haze	32	%	ASTM D 1003
Light Transmittance	11	%	ASTM D 1003

Other properties	Value	Unit	Test Standard
Water Absorption, Equilibrium	0.3	%	ASTM D 570
Density	1080	kg/m ³	ASTM D 792

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	71	°C	-
Pre-drying - Time	3 - 4	h	-
Melt temperature	238 - 254	°C	-
Mold temperature	60 - 77	°C	-
Zone 1	223 - 237	°C	-
Zone 2	237 - 254	°C	-
Zone 3	237 - 254	°C	-
Nozzle temperature	237 - 254	°C	-
Injection pressure	41 - 103	MPa	-
Back pressure	0 - 0.69	MPa	-

Characteristics**Processing**

Injection Molding, Other Extrusion

Special Characteristics

High impact or impact modified, Transparent

Features

Ductile

Certifications

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

Applications

Medical

Regional Availability

North America

Chemical Resistance

General Chemical Resistance, Radiation Resistance