

Product Texts

CYCOLOY HCX1640 Polycarbonate/Acrylonitrile Butadiene Styrene (PC/ABS) blend is a biocompatible (ISO10993 or USP Class VI) grade for medical devices and pharmaceutical applications. It has improved heat, flow and impact balance as compared with conventional PC/ABS blends. This grade adheres to our healthcare management of change policy.

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	18	cm ³ /10min	ISO 1133
Temperature	260	°C	-
Load	5	kg	-
ASTM Data			
Melt Flow Index, MFI	19	g/10min	ASTM D 1238
Temperature	260	°C	-
Load	5	kg	-

Mechanical properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	2400	MPa	ISO 527
Yield stress	55	MPa	ISO 527
Yield strain	5	%	ISO 527
Stress at break	50	MPa	ISO 527
Strain at break	50	%	ISO 527
Flexural modulus	2300	MPa	ISO 178
Charpy impact strength, +23°C	N	kJ/m ²	ISO 179/1eU
Charpy impact strength, -30°C	N	kJ/m ²	ISO 179/1eU
Charpy notched impact strength, +23°C	40	kJ/m ²	ISO 179/1eA
Charpy notched impact strength, -30°C	20	kJ/m ²	ISO 179/1eA
Izod impact strength, +23°C, 4mm	N	kJ/m ²	ISO 180/1U
Izod impact strength, -30°C, 4mm	N	kJ/m ²	ISO 180/1U
Izod notched impact strength, +23°C, 4mm	40	kJ/m ²	ISO 180/1A
Izod notched impact strength, -30°C, 4mm	20	kJ/m ²	ISO 180/1A
ASTM Data			
Tensile Modulus	2400	MPa	ASTM D 638
Tensile Strength at Yield	55	MPa	ASTM D 638
Tensile Strength at Break	50	MPa	ASTM D 638
Elongation at Yield	5	%	ASTM D 638
Elongation at Break	50	%	ASTM D 638
Flexural Modulus	2300	MPa	ASTM D 790
Izod Impact notched, 1/8 in	550	J/m	ASTM D 256
Izod Impact notched, Low-Temperature	300	J/m	ASTM D 256
Temperature	-30	°C	-

Thermal properties	Value	Unit	Test Standard
ISO Data			
Temp. of deflection under load, 1.80 MPa	108	°C	ISO 75-1/-2
Vicat softening temperature, B	130	°C	ISO 306
Vicat softening temperature, 120°C/h 50N	132	°C	ISO 306
ASTM Data			
DTUL @ 66 psi	122	°C	ASTM D 648
DTUL @ 264 psi	108	°C	ASTM D 648
Vicat Temperature	130	°C	ASTM D 1525

Other properties	Value	Unit	Test Standard
Water absorption	0.4	%	Sim. to ISO 62
Humidity absorption	0.1	%	Sim. to ISO 62
Density	1150	kg/m ³	ISO 1183
Density	1150	kg/m ³	ASTM D 792

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	100 - 110	°C	-
Pre-drying - Time	2 - 4	h	-
Processing humidity	≤0.02	%	-
Melt temperature	260 - 290	°C	-
Mold temperature	60 - 90	°C	-
Feed temperature	60 - 80	°C	-
Zone 1	230 - 260	°C	-
Zone 2	250 - 290	°C	-
Zone 3	250 - 290	°C	-

Characteristics

Processing

Injection Molding

Regional Availability

Europe