CYCOLOY™ RESIN MC8100

REGION AMERICAS

DESCRIPTION

PC/ABS, extrusion and blow molding grade.

TYPICAL PROPERTY VALUES

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, yld, Type I, 50 mm/min	52	MPa	ASTM D 638
Tensile Strain, yld, Type I, 50 mm/min	5	%	ASTM D 638
Tensile Strain, brk, Type I, 50 mm/min	100	%	ASTM D 638
Tensile Modulus, 50 mm/min	2060	MPa	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	77	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	2060	MPa	ASTM D 790
IMPACT			
Izod Impact, notched, 23°C	534	J/m	ASTM D 256
Izod Impact, notched, -30°C	427	J/m	ASTM D 256
Instrumented Impact Total Energy, 23°C	54	J	ASTM D 3763
Instrumented Impact Total Energy, -30°C	47	J	ASTM D 3763
THERMAL			
HDT, 0.45 MPa, 3.2 mm, unannealed	123	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	104	°C	ASTM D 648
CTE, -40°C to 40°C, flow	8.1E-05	1/°C	ASTM E 831
Thermal Conductivity	0.2	W/m-°C	ASTM C177
PHYSICAL			
Specific Gravity	1.13	-	ASTM D 792
Water Absorption, 24 hours	0.1	%	ASTM D 570
Water Absorption, equilibrium, 23C	0.4	%	ASTM D 570
Mold Shrinkage, flow, 3.2 mm	0.4 – 0.7	%	SABIC method
EXTRUSION BLOW MOLDING			
Drying Temperature	100 – 110	°C	
Drying Time	3 – 4	hrs	
Drying Time (Cumulative)	24	hrs	
Maximum Moisture Content	0.04 – 0.05	%	
Minimum Moisture Content	0.04	%	
Melt Temperature (Parison)	245 – 260	°C	
Barrel - Zone 1 Temperature	240 – 250	°C	
Barrel - Zone 2 Temperature	240 – 255	°C	
Barrel - Zone 3 Temperature	240 – 255	°C	
Barrel - Zone 4 Temperature	240 – 255	°C	
Adapter - Zone 5 Temperature	245 – 260	°C	
Head - Zone 6 - Top Temperature	245 – 260	°C	

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Head - Zone 7 - Bottom Temperature	245 – 260	°C	
Screw Speed	20 – 50	rpm	
Extruder Feed Zone Temperature	60 – 80	°C	
Mold Temperature	40 – 90	°C	
Die Temperature	250 – 265	°C	