

Cycloloy* Resin MC8100

Americas: COMMERCIAL

Extrusion blowmolding grade.

Property

TYPICAL PROPERTIES ⁽¹⁾			
MECHANICAL	Value	Unit	Standard
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	Value	Unit	Standard
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	Value	Unit	Standard
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 C 177
PHYSICAL	Value	Unit	Standard
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

Source GMD, last updated:01/05/2000

Processing

Parameter	Value	Unit
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
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

Source GMD, last updated:01/05/2000

- For extended downtime, lower barrel, head and die temperatures to 120°C (250°F).

THESE PROPERTY VALUES ARE NOT INTENDED FOR SPECIFICATION PURPOSES.

PLEASE CHECK WITH YOUR [\(LOCAL SALES OFFICE\)](#) FOR AVAILABILITY IN YOUR REGION

(1) Typical values only. Variations within normal tolerances are possible for various colors. All values are measured after at least 48 hours storage at 23°C/50% relative humidity. All properties, except the melt volume and melt flow rates, are measured on injection molded samples. All samples tested under ISO test standards are prepared according to ISO 294.

(2) Only typical data for selection purposes. Not to be used for part or tool design.

(3) This rating is not intended to reflect hazards presented by this or any other material under actual fire conditions.

(4) Internal measurements according to UL standards.

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