CYCOLAC™ RESIN EX39

REGION ASIA

DESCRIPTION

Highest impact extrusion ABS for sheet and blow molding applications.

TYPICAL PROPERTY VALUES

Revision 20190703

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, yld, Type I, 5 mm/min	35	MPa	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	28	MPa	ASTM D 638
Tensile Strain, yld, Type I, 5 mm/min	3.5	%	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	108	%	ASTM D 638
Tensile Modulus, 5 mm/min	1680	MPa	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	57	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	1900	MPa	ASTM D 790
IMPACT			
Izod Impact, notched, 23°C	464	J/m	ASTM D 256
Izod Impact, notched, -30°C	320	J/m	ASTM D 256
Instrumented Impact Total Energy, 23°C	39	J	ASTM D 3763
THERMAL			
Vicat Softening Temp, Rate B/50	106	°C	ASTM D 1525
HDT, 0.45 MPa, 3.2 mm, unannealed	91	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	77	°C	ASTM D 648
CTE, -40°C to 40°C, flow	1.01E-04	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	1.17E-04	1/°C	ASTM E 831
Relative Temp Index, Elec	60	°C	UL 746B
Relative Temp Index, Mech w/impact	60	°C	UL 746B
Relative Temp Index, Mech w/o impact	60	°C	UL 746B
PHYSICAL			
Specific Gravity	1.03	-	ASTM D 792
Mold Shrinkage, flow, 3.2 mm	0.7 – 0.9	%	SABIC method
Melt Viscosity, 240°C, 100 sec-1	15200	Poise	ASTM D 3825
Melt Volume Rate, MVR at 220°C/10.0 kg	4	cm³/10 min	ISO 1133
FLAME CHARACTERISTICS			
UL Recognized, 94HB Flame Class Rating	1.52	mm	UL 94
EXTRUSION BLOW MOLDING			
Drying Temperature	80 – 90	°C	
Drying Time	5 – 4	hrs	
Drying Time (Cumulative)	24	hrs	
Maximum Moisture Content	0.02 – 0.04	%	
Minimum Moisture Content	0.04	%	
Melt Temperature (Parison)	210 – 225	°C	

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Barrel - Zone 1 Temperature	190 – 220	°C	
Barrel - Zone 2 Temperature	190 – 220	°C	
Barrel - Zone 3 Temperature	190 – 220	°C	
Barrel - Zone 4 Temperature	190 – 220	°C	
Adapter - Zone 5 Temperature	195 – 220	°C	
Head - Zone 6 - Top Temperature	195 – 220	°C	
Head - Zone 7 - Bottom Temperature	195 – 220	°C	
Screw Speed	20 – 60	rpm	
Extruder Feed Zone Temperature	60 – 80	°C	
Mold Temperature	40 – 90	°C	
Die Temperature	195 – 220	°C	
SHEET EXTRUSION			
Drying Temperature	90 – 95	°C	
Drying Time	2 – 4	hrs	
Maximum Moisture Content	0	%	
Melt Temperature	210 – 240	°C	
Barrel - Zone 1 Temperature	195 – 210	°C	
Barrel - Zone 2 Temperature	200 – 220	°C	
Barrel - Zone 3 Temperature	205 – 230	°C	
Barrel - Zone 4 Temperature	210 – 235	°C	
Adapter Temperature	200 – 225	°C	
Die Temperature	210 – 240	°C	

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