CYCOLAC™ RESIN GX3800F

REGION ASIA

DESCRIPTION

High impact ABS for sheet extrusion. FDA food contact compliant.

TYPICAL PROPERTY VALUES

Revision 20190703

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, yld, Type I, 5 mm/min	39	MPa	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	30	MPa	ASTM D 638
Tensile Strain, yld, Type I, 5 mm/min	3.1	%	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	31.6	%	ASTM D 638
Tensile Modulus, 5 mm/min	2080	MPa	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	66	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	2160	MPa	ASTM D 790
IMPACT			
Izod Impact, notched, 23°C	432	J/m	ASTM D 256
Izod Impact, notched, -30°C	299	J/m	ASTM D 256
Instrumented Impact Total Energy, 23°C	50	J	ASTM D 3763
THERMAL			
Vicat Softening Temp, Rate B/50	106	°C	ASTM D 1525
HDT, 0.45 MPa, 3.2 mm, unannealed	93	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	80	°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	1.04E-04	1/°C	ASTM E 831
PHYSICAL			
Specific Gravity	1.03	-	ASTM D 792
Mold Shrinkage, flow, 3.2 mm	0.6 – 0.8	%	SABIC method
Melt Viscosity, 240°C, 100 sec-1	14000	Poise	ASTM D 3825
Melt Volume Rate, MVR at 220°C/10.0 kg	4	cm³/10 min	ISO 1133
EXTRUSION BLOW MOLDING			
Drying Temperature	80 – 90	°C	
Drying Time	4 – 5	hrs	
Drying Time (Cumulative)	24	hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature (Parison)	215 – 230	°C	
Barrel - Zone 1 Temperature	205 – 225	°C	
Barrel - Zone 2 Temperature	205 – 225	°C	
Barrel - Zone 3 Temperature	205 – 225	°C	
Barrel - Zone 4 Temperature	205 – 225	°C	
Adapter - Zone 5 Temperature	210 – 230	°C	
Head - Zone 6 - Top Temperature	215 – 230	°C	

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Head - Zone 7 - Bottom Temperature	215 – 230	°C	
Screw Speed	20 – 60	rpm	
Extruder Feed Zone Temperature	60 – 75	°C	
Mold Temperature	40 – 80	°C	
Die Temperature	215 – 235	°C	
SHEET EXTRUSION			
Drying Temperature	80 – 95	°C	
Drying Time	4	hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	215 – 260	°C	
Barrel - Zone 1 Temperature	170 – 200	°C	
Barrel - Zone 2 Temperature	180 – 220	°C	
Barrel - Zone 3 Temperature	190 – 225	°C	
Barrel - Zone 4 Temperature	200 – 240	°C	
Adapter Temperature	205 – 250	°C	
Die Temperature	205 – 250	°C	
Roll Stack Temp - Top	90 – 95	°C	
Roll Stack Temp - Middle	95 – 105	°C	
Roll Stack Temp - Bottom	100 – 105	°C	

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