



CYCOLOY C2800

Product Portfolio | Product Lines | CYCOLOY

USA: Commercial

PC/ABS, flame retardant grade without chlorinated or brominated additives, offers superior flow properties for thin wall designs.

Processing

INJECTION MOULDING-USA

CLY-IM-05

Drying Temperature	170-180	deg F
Drying Time (basic)	3-4	h
Drying Time (cumulative)	8	h
Moisture Content, max	0.04	%
Moisture Content, min	-	%
Melt Temperature	450-525	deg F
Nozzle	450-525	deg F
Front	440-525	deg F
Middle	420-500	deg F
Rear	410-490	deg F
Mold Temperature	120-160	deg F
Back Pressure	50-100	psig
Screw Speed	40-70	rpm
Shot to Cylinder Size	30-80	%
Clamp Tonnage	3-5	tons/psi
Vent Depth	0.0015-0.0030	inch

Source Eris, last updated: 2000/10/

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Properties

MECHANICAL

Property	Typical Data	Unit	Method
Tensile Str, yld, Type I, 2.0 in/min	8500	psi	ASTM D 638
Tensile Elong, yld, Type I, 2.0 in/min	5.0	%	ASTM D 638
Tensile Elong, brk, Type I, 2.0 in/min	50.0	%	ASTM D 638
Tensile Modulus, 2.0 in/min	390000	psi	ASTM D 638
Flex Stress, yld, 0.10 in/min, 4" span	14000	psi	ASTM D 790
Flex Mod, 0.10 in/min, 4" span	390000	psi	ASTM D 790
Hardness, Rockwell R	120	-	ASTM D 785
Hardness, Rockwell R	120	-	ASTM D 785

IMPACT

Property	Typical Data	Unit	Method
Izod Impact, notched, 73F	8.0	ft-lb/in	ASTM D 256
Instrumented Impact Total Energy, 73F	516	in-lbs	ASTM D 3763

THERMAL

Property	Typical Data	Unit	Method
Vicat Softening Temp, Rate B	195	deg F	ASTM D 1525
HDT, 264 psi, 0.125", unannealed	165	deg F	ASTM D 648
HDT, 264 psi, 0.250", unannealed	176	deg F	ASTM D 648
Thermal Conductivity	0.20	W/m-C	ASTM C 177
CTE, flow, -40F to 140F	4 E-5	1/F	ASTM E 831
CTE, xflow, -40F to 140F	4 E-5	1/F	ASTM E 831
Thermal Conductivity	0.20	W/m-C	ASTM C 177
Thermal Index, Elec Prop	80	deg C	UL 746B
Thermal Index, Mech Prop with impact	70	deg C	UL 746B
Thermal Index, Mech prop without impact	80	deg C	UL 746B

PHYSICAL

Property	Typical Data	Unit	Method
Specific Gravity, solid	1.17	-	ASTM D 792
Specific Gravity, color	1.18	-	ASTM D 792
Water Absorption, 24 hours @ 73F	0.100	%	ASTM D 570
Water Absorption, equilibrium, 73F	0.40	%	ASTM D 570
Mold Shrinkage, flow, 0.125"	4-6	in/in E-3	ASTM D 955
Mold Shrinkage, xflow, 0.125"	4-6	in/in E-3	ASTM D 955
Melt Flow Rate, nom'l, 260C/2.16 kgf	16.0	g/10 min	ASTM D 1238
Water Absorption, equilibrium, 73F	0.40	%	ASTM D 570

ELECTRICAL

Property	Typical Data	Unit	Method
Volume Resistivity	1E17	ohm-cm	ASTM D 257
Surface Resistivity	>1E14	ohm/sq	ASTM D 257
Dielectric Strength, in oil, 125 mils	457	V/mil	ASTM D 149
Dielectric Constant, 50 Hz	3.00	-	ASTM D 150
Dielectric Constant, 100 Hz	3.00	-	ASTM D 150
Dissipation Factor, 50 Hz	0.0048	-	ASTM D 150
Arc Resistance, Tungsten (+/- 0.125")	6	PLC Code	ASTM D 495
Hot Wire Ignition (+/- 0.125")	3	PLC Code	UL 746A
High Voltage Arc Track Rate (+/- 0.125")	3	PLC Code	UL 746A
High Amp Arc Ign, surface (+/- 0.125")	0	PLC Code	UL 746A
Comparative Track Index (+/- 0.125")	1	PLC Code	UL 746A
Volume Resistivity	1E17	ohm-cm	ASTM D 257
Surface Resistivity	>1E14	ohm/sq	ASTM D 257
Dielectric Strength, in oil, 125 mils	457	V/mil	ASTM D 149
Dielectric Constant, 50 Hz	3.00	-	ASTM D 150
Dielectric Constant, 100 Hz	3.00	-	ASTM D 150
Dissipation Factor, 50 Hz	0.0048	-	ASTM D 150

FLAME CHARACTERISTICS

Property	Typical Data	Unit	Method
UL File Number, EUROPE	E45329	-	-
UL File Number, GLOBAL	E161759	-	-

UL File Number, USA	E121562 -	-
V-2 Rated (tested thickness)	0.035 inch	UL 94
V-0 Rated (tested thickness)	0.058 inch	UL 94
5VB Rating (tested thickness)	0.091 inch	UL 94
CSA (See File for complete listing)	LS88480 File No.	CSA LISTED
Oxygen Index (LOI)	35.0 %	ASTM D 2863
Oxygen Index (LOI)	35.0 %	ASTM D 2863

Source Eris, last updated: 2000/10/

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