POLYLAC® PA-765
Acrylonitrile Butadiene Styrene
CHI MEI CORPORATION Web

General			
Material Status	• Commercial: Active		
Literature [1]	• Processing (English) • Technical Datasheet (English)	• Technical Datasheet - ISO data (English) • Approvals Document - UL (English)	• Approvals Document - RoHS (English)
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America • South America
Additive	• Ignition Resistant		
Features	• Flame Retardant • High Flow	• Medium Impact Resistance • Self Extinguishing	
RoHS Compliance	• RoHS Compliant		
Forms	• Pellets		
Processing Method	• Injection Molding		

Physical	Nominal Value	Unit	Test Method
Specific Gravity			
--	1.19		ASTM D792
--	1.19	g/cm³	ISO 1183
Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)	5.2	g/10 min	ASTM D1238
Melt Volume-Flow Rate (MVR) (220°C/10.0 kg)	2.99	in³/10min	ISO 1133

Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale, 0.500 in)	100		ASTM D785
Ball Indentation Hardness (H 358/30)	11500	psi	ISO 2039-1

Mechanical	Nominal Value	Unit	Test Method
Tensile Strength			
Yield, 73°F, 0.125 in [2]	5530	psi	ASTM D638
Yield	5660	psi	ISO 527-2/50
Break	4930	psi	ISO 527-2/50
Tensile Elongation			
Break, 0.125 in [2]	15	%	ASTM D638
Break	10	%	ISO 527-2/50
Flexural Modulus			
0.250 in [3]	300000	psi	ASTM D790
-- [4]	261000	psi	ISO 178
Flexural Strength			
0.250 in [3]	8800	psi	ASTM D790
-- [4]	7980	psi	ISO 178

Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength	9.52	ft·lb/in²	ISO 179
Notched Izod Impact			
73°F, 0.125 in	4.00	ft·lb/in	ASTM D256
73°F, 0.250 in	3.30	ft·lb/in	ASTM D256
--	8.09	ft·lb/in²	ISO 180/1A

Thermal	Nominal Value	Unit	Test Method

Deflection Temperature Under Load		
264 psi, Unannealed, 0.250 in	165 °F	ASTM D648
264 psi, Unannealed	187 °F	ISO 75-2/A
264 psi, Annealed, 0.250 in	181 °F	ASTM D648
264 psi, Annealed	205 °F	ISO 75-2/A
Vicat Softening Temperature		
--	194 °F	ASTM D1525 [5], ISO 306/A120 [5]
--	192 °F	ISO 306/A50
--	172 °F	ISO 306/B50
--	176 °F	ISO 306/B120

Electrical	Nominal Value	Unit	Test Method
Arc Resistance (PLC)	PLC 7		ASTM D495

Flammability	Nominal Value	Unit	Test Method
Flame Rating - UL			UL 94
0.0591 in, All colors	• V-0 • 5VB		
0.0984 in	• V-0 • 5VA		
0.118 in	• V-0 • 5VA		
UL File Number	E56070		

UL 746	Nominal Value	Unit	Test Method
RTI Str			UL 746
0.0591 in	176	°F	
0.0984 in	176	°F	
0.118 in	176	°F	
RTI Imp			UL 746
0.0591 in	176	°F	
0.0984 in	176	°F	
0.118 in	176	°F	
RTI Elec			UL 746
0.0591 in	176	°F	
0.0984 in	176	°F	
0.118 in	176	°F	
Comparative Tracking Index (CTI) (PLC)	PLC 1		UL 746
High Voltage Arc Tracking Rate (HVTR) (PLC)	PLC 0		UL 746
Hot-wire Ignition (HWI) (PLC)			UL 746
0.0591 in	PLC 0		
0.0984 in	PLC 2		
0.118 in	PLC 0		
High Amp Arc Ignition (HAI) (PLC)			UL 746
0.0591 in	PLC 0		
0.0984 in	PLC 0		
0.118 in	PLC 0		

Additional Information

Impact Flexural Test, ISO 179/2C, Notched: 12 kJ/m²
Impact Flexural Test, ISO 179/2D, Unnotched: No Break

Injection	Nominal Value	Unit
Drying Temperature	176	°F
Drying Time	2.0 to 3.0	hr
Rear Temperature	356 to 410	°F
Middle Temperature	374 to 428	°F
Nozzle Temperature	374 to 428	°F
Mold Temperature	104 to 158	°F
Back Pressure	71.1 to 142	psi

Injection Notes

Injection Pressure: 50 to 60%
Holding Pressure: 40 to 50%

Notes

[1] These links provide you with access to supplier literature. We work hard to keep them up to date, however you may find the most current literature from the supplier.

[2] 0.24 in/min

[3] 0.11 in/min

[4] 0.079 in/min

[5] Rate A (50℃/h)

Revision History
Added to Prospector: November, 1995
Last Updated: 1/7/2009

Component - Plastics **E56070**

CHI MEI CORPORATION

59-1 SAN CHIA, JEN TE, TAINAN HSIEN 717 TW

PA-765(+)

Acrylonitrile Butadiene Styrene (ABS), "Polylac", furnished as pellets

Color	Min Thk (mm)	Flame Class	HWI	HAI	RTI Elec	RTI Imp	RTI Str
ALL	1.0	V-1	4	0	80	80	80
	1.5	V-0, 5VB	2	0	80	80	80
	2.5	V-0, 5VA	2	0	80	80	80
	3.0	V-0, 5VA	0	0	80	80	80

Comparative Tracking Index (CTI): **1**

Dimensional Stability (%): **-**

High-Voltage Arc Tracking Rate (HVTR): **0**

High Volt, Low Current Arc Resis (D495): **7**

Dielectric Strength (kV/mm): **-**

Volume Resistivity (10^x ohm-cm) : **15**

(+) - Optional prefix or suffix; may be used to denote usage of 0-0.5 percent acid scavengers.

ANSI/UL 94 small-scale test data does not pertain to building materials, furnishings and related contents. ANSI/UL 94 small-scale test data is intended solely for determining the flammability of plastic materials used in the components and parts of end-product devices and appliances, where the acceptability of the combination is determined by UL.

Report Date:1983-06-23
Last Revised:2008-07-03

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IEC and ISO Test Methods

Test Name	Test Method	Units	Thickness Tested (mm)	Value
Flammability	IEC 60695-11-10, IEC 60695-11-20	Class (color)	1.0	V-1 (ALL)
			1.5	V-0, 5VB (ALL)
			2.5	V-0, 5VA (ALL)
			3.0	V-0, 5VA (ALL)
Glow-Wire Flammability (GWFI)	IEC 60695-2-12	C	-	-
Glow-Wire Ignition (GWIT)	IEC 60695-2-13	C	-	-
IEC Comparative Tracking Index	IEC 60112	Volts (Max)	-	-
IEC Ball Pressure	IEC 60695-10-2	C	-	-
ISO Heat Deflection (1.80 MPa)	ISO 75-2	C	-	-
ISO Tensile Strength	ISO 527-2	MPa	-	-
ISO Flexural Strength	ISO 178	MPa	-	-
ISO Tensile Impact	ISO 8256	kJ/m^2	-	-
ISO Izod Impact	ISO 180	kJ/m^2	-	-
ISO Charpy Impact	ISO 179-2	kJ/m^2	-	-

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