

Cycolac* Resin Z703

Europe-Africa-Middle East: LIMITED USE

CYCOLAC Z703 is an alpha-methylstyrene acrylonitrile butadiene styrene (AMS+ABS) industrial resin. It offers a very high heat and good impact properties. The physical appearance is a white coloured, free-flowing powder with a particle size <2 mm and a bulk density of 400 kg/m³.

Property

TYPICAL PROPERTIES ⁽¹⁾			
MECHANICAL	Value	Unit	Standard
Tensile Stress, yield, 50 mm/min	44	MPa	ISO 527
Tensile Modulus, 1 mm/min	2100	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	70	MPa	ISO 178
Flexural Modulus, 2 mm/min	2200	MPa	ISO 178
IMPACT	Value	Unit	Standard
Izod Impact, notched 80*10*4 +23°C	10	kJ/m ²	ISO 180/1A
Izod Impact, notched 80*10*4 -30°C	4	kJ/m ²	ISO 180/1A
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	10	kJ/m ²	ISO 179/1eA
Charpy -30°C, V-notch Edgew 80*10*4 sp=62mm	4	kJ/m ²	ISO 179/1eA
THERMAL	Value	Unit	Standard
CTE, 23°C to 60°C, xflow	8.E-05	1/°C	ISO 11359-2
CTE, 23°C to 80°C, flow	7.E-05 - 9.E-05	1/°C	ISO 11359-2
Ball Pressure Test, 75°C +/- 2°C	PASSES	-	IEC 60695-10-2
Vicat Softening Temp, Rate B/50	113	°C	ISO 306
Vicat Softening Temp, Rate B/120	115	°C	ISO 306
HDT/Be, 0.45MPa Edgew 120*10*4 sp=100mm	100	°C	ISO 75/Be
HDT/Ae, 1.8 MPa Edgew 120*10*4 sp=100mm	88	°C	ISO 75/Ae
PHYSICAL	Value	Unit	Standard
Density	1.05	g/cm ³	ISO 1183
Melt Flow Rate, 220°C/10.0 kg	4	g/10 min	ISO 1133
Melt Volume Rate, MVR at 220°C/10.0 kg	4	cm ³ /10 min	ISO 1133
FLAME CHARACTERISTICS	Value	Unit	Standard
UL Compliant, 94HB Flame Class Rating (3)(4)	1.6	mm	UL 94 by GE

Source GMD, last updated:06/19/2002

Processing

Parameter	Value	Unit
Injection Molding		
Drying Temperature	90 - 100	°C
Drying Time	2 - 4	hrs
Maximum Moisture Content	0.1	%
Melt Temperature	250 - 280	°C
Nozzle Temperature	245 - 275	°C
Front - Zone 3 Temperature	250 - 280	°C
Middle - Zone 2 Temperature	250 - 280	°C
Rear - Zone 1 Temperature	230 - 260	°C
Hopper Temperature	60 - 80	°C

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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