CYCOLAC™ Resin MG94

Europe-Africa-Middle East: COMMERCIAL

Superior flow, injection molding ABS. Good impact. For thin-wall applications.

TYPICAL PROPERTIES[1]	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, yield, 5 mm/min	40	MPa	ISO 527
Tensile Stress, break, 5 mm/min	35	MPa	ISO 527
Tensile Stress, yield, 50 mm/min	45	MPa	ISO 527
Tensile Stress, break, 50 mm/min	35	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	2	%	ISO 527
Tensile Strain, break, 5 mm/min	35	%	ISO 527
Tensile Strain, yield, 50 mm/min	2.2	%	ISO 527
Tensile Strain, break, 50 mm/min	45	%	ISO 527
Tensile Modulus, 1 mm/min	2400	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	65	MPa	ISO 178
Flexural Modulus, 2 mm/min	2450	MPa	ISO 178
Hardness, H358/30	95	MPa	ISO 2039-1
Hardness, Rockwell R	129	-	ISO 2039-2
IMPACT			
Izod Impact, notched 80*10*4 +23°C	18	kJ/m²	ISO 180/1A
Izod Impact, notched 80*10*4 -30°C	7	kJ/m²	ISO 180/1A
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	23	kJ/m²	ISO 179/1eA
Charpy -30°C, V-notch Edgew 80*10*4 sp=62mm	10	kJ/m²	ISO 179/1eA
THERMAL			
CTE, 23°C to 60°C, flow	8.7E-05	1/°C	ISO 11359-2
CTE, 23°C to 60°C, xflow	8.7E-05	1/°C	ISO 11359-2
Vicat Softening Temp, Rate B/50	99	°C	ISO 306
Vicat Softening Temp, Rate B/120	100	°C	ISO 306

(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.
(5) Measurements made from laboratory test coupon. Actual shrinkage may vary outside of range due to differences in processing conditions, equipment, part geometry and tool design. It is recommended that mold shrinkage studies be performed with surrogate or legacy tooling prior to cutting tools for new molded article.
(6) Needs hard coat to consistently pass 60 sec Vertical Burn.

Source GMD, last updated:

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TYPICAL PROPERTIES[1]	TYPICAL VALUE	Unit	Standard
THERMAL			
HDT/Be, 0.45MPa Edgew 120*10*4 sp=100mm	91	°C	ISO 75/Be
HDT/Ae, 1.8 MPa Edgew 120*10*4 sp=100mm	80	°C	ISO 75/Ae
PHYSICAL			
Mold Shrinkage on Tensile Bar, flow (2) (5)	0.5 - 0.7	%	SABIC Method
Density	1.04	g/cm³	ISO 1183
Moisture Absorption (23°C / 50% RH)	0.16	%	ISO 62
Melt Volume Rate, MVR at 220°C/10.0 kg	39	cm³/10 min	ISO 1133
FLAME CHARACTERISTICS			
Glow Wire Flammability Index 650°C, passes at	3.2	mm	IEC 60695-2-12

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PROCESSING PARAMETERS	TYPICAL VALUE	Unit
Injection Molding		
Drying Temperature	85 - 95	°C
Drying Time	2 - 4	hrs
Maximum Moisture Content	0.1	%
Melt Temperature	220 - 260	°C
Nozzle Temperature	210 - 250	°C
Front - Zone 3 Temperature	220 - 260	°C
Middle - Zone 2 Temperature	220 - 260	°C
Rear - Zone 1 Temperature	200 - 240	°C
Hopper Temperature	60 - 80	°C
Mold Temperature	40 - 80	°C

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