

Cycolac* Resin G122

Europe-Africa-Middle East: COMMERCIAL

CYCOLAC G122 is a G-series ABS grade specifically developed for applications like machine tools automotive and appliances. It combines high impact with good flow, medium heat and high gloss surface appearance.

TYPICAL PROPERTIES ¹	TYPICAL VALUE	UNIT	STANDARD
MECHANICAL			
Tensile Stress, yield, 5 mm/min	35	MPa	ISO 527
Tensile Stress, break, 5 mm/min	30	MPa	ISO 527
Tensile Stress, yield, 50 mm/min	40	MPa	ISO 527
Tensile Stress, break, 50 mm/min	35	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	3	%	ISO 527
Tensile Strain, yield, 50 mm/min	3	%	ISO 527
Tensile Modulus, 1 mm/min	2000	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	57	MPa	ISO 178
Flexural Modulus, 2 mm/min	2100	MPa	ISO 178
Hardness, H358/30	83	MPa	ISO 2039-1
Hardness, Rockwell R	103	-	ISO 2039-2
IMPACT			
Izod Impact, notched 80*10*4 +23°C	25	kJ/m ²	ISO 180/1A
Izod Impact, notched 80*10*4 -30°C	14	kJ/m ²	ISO 180/1A
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	24	kJ/m ²	ISO 179/1eA
Charpy -30°C, V-notch Edgew 80*10*4 sp=62mm	14	kJ/m ²	ISO 179/1eA
THERMAL			
Thermal Conductivity	0.2	W/m-°C	ISO 8302
CTE, 23°C to 60°C, flow	8.E-05	1/°C	ISO 11359-2
CTE, 23°C to 60°C, xflow	8.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	93	°C	ISO 306
Vicat Softening Temp, Rate B/120	96	°C	ISO 306

¹ Typical values only. Variations within normal tolerances are possible for various colours. All values are measured at least after 48 hours storage at 23°C/50% relative humidity. All properties, except the melt volume rate are measured on injection moulded samples. All samples are prepared according to ISO 294.

² Only typical data for material selection purpose. Not to be used for part or tool design.
³ This rating is not intended to reflect hazards presented this or any other material under actual fire conditions.
⁴ Own measurement according to UL.
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.

Dongguan Yi-Ming Plastic Chemical Co., Ltd.

如需要更多物性资料请查阅 www.kedisujiao.com

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THERMAL			
HDT/Be, 0.45MPa Edgew 120*10*4 sp=100mm	88	°C	ISO 75/Be
HDT/Ae, 1.8 MPa Edgew 120*10*4 sp=100mm	73	°C	ISO 75/Ae
Relative Temp Index, Elec	60	°C	UL 746B
Relative Temp Index, Mech w/impact	60	°C	UL 746B
Relative Temp Index, Mech w/o impact	60	°C	UL 746B
PHYSICAL			
Mold Shrinkage on Tensile Bar, flow (2) (5)	0.5 - 0.7	%	SABIC Method
Density	1.05	g/cm ³	ISO 1183
Water Absorption, (23°C/sat)	1	%	ISO 62
Moisture Absorption (23°C / 50% RH)	0.2	%	ISO 62
Melt Flow Rate, 220°C/10.0 kg	15	g/10 min	ISO 1133
Melt Volume Rate, MVR at 220°C/10.0 kg	16	cm ³ /10 min	ISO 1133
ELECTRICAL			
Volume Resistivity	>1.E+15	Ohm-cm	IEC 60093
Surface Resistivity, ROA	>1.E+15	Ohm	IEC 60093
Dielectric Strength, in oil, 3.2 mm	17	kV/mm	IEC 60243-1
Relative Permittivity, 50/60 Hz	2.8	-	IEC 60250
Relative Permittivity, 1 MHz	2.6	-	IEC 60250
Dissipation Factor, 50/60 Hz	0.008	-	IEC 60250
Dissipation Factor, 1 MHz	0.009	-	IEC 60250
Comparative Tracking Index	550	V	IEC 60112
FLAME CHARACTERISTICS			
UL Recognized, 94HB Flame Class Rating (3)	1.5	mm	UL 94
UL Recognized, 94HB Flame Class Rating 2nd value (3)	3	mm	UL 94
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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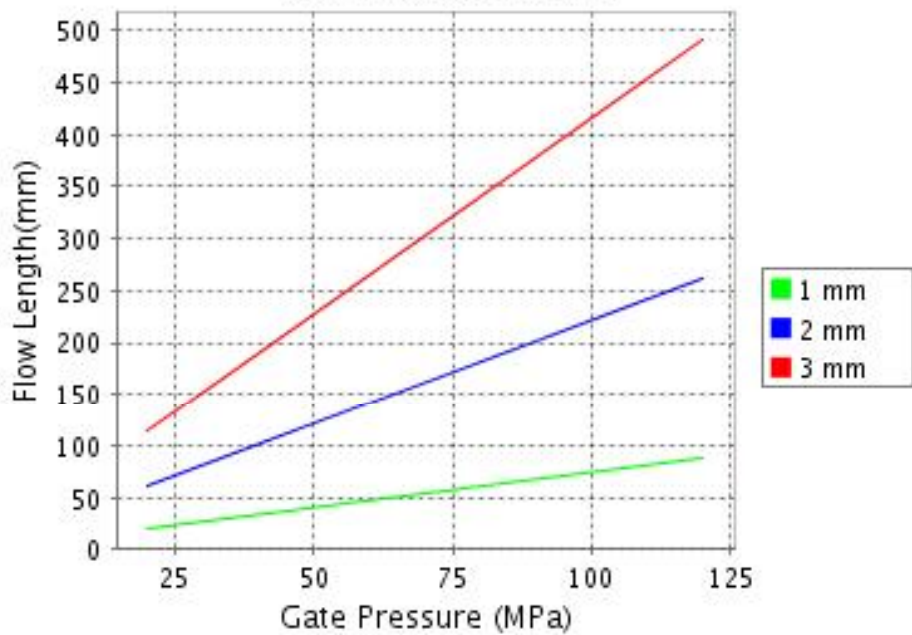
CALCULATED FLOW LENGTH INDICATION

Moldflow® Radial Flow Analysis

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Melt Temperature : 220°C

Mold Temperature : 60°C



Note: Technical support is recommended if Gate Pressure is greater than 80 MPa. Contact your local representative.

® Moldflow is a registered trademark of the Moldflow Corporation.

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