



Cycolac* Resin MG38P

Americas: COMMERCIAL

High flow, injection molding ABS for pipe fittings. NSF Standard DWV Cell Class 32222. Available in black color

TYPICAL PROPERTIES ¹	TYPICAL VALUE	UNIT	STANDARD
MECHANICAL			
Tensile Stress, yld, Type I, 5 mm/min	430	kgf/cm ²	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	350	kgf/cm ²	ASTM D 638
Tensile Strain, yld, Type I, 5 mm/min	2.5	%	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	48.8	%	ASTM D 638
Tensile Modulus, 5 mm/min	23400	kgf/cm ²	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	750	kgf/cm ²	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	25400	kgf/cm ²	ASTM D 790
Tensile Stress, yield, 50 mm/min	42	MPa	ISO 527
Tensile Stress, break, 50 mm/min	32	MPa	ISO 527
Tensile Strain, yield, 50 mm/min	2.4	%	ISO 527
Tensile Strain, break, 50 mm/min	52.5	%	ISO 527
IMPACT			
Izod Impact, notched, 23°C	43	cm-kgf/cm	ASTM D 256
Instrumented Impact Total Energy, 23°C	495	cm-kgf	ASTM D 3763
Izod Impact, notched 80*10*4 +23°C	26	kJ/m ²	ISO 180/1A
Izod Impact, notched 80*10*4 -30°C	11	kJ/m ²	ISO 180/1A
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	28	kJ/m ²	ISO 179/1eA
THERMAL			
Vicat Softening Temp, Rate B/50	110	°C	ASTM D 1525
HDT, 0.45 MPa, 3.2 mm, unannealed	96	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	85	°C	ASTM D 648
CTE, -40°C to 40°C, flow	8.82E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	8.64E-05	1/°C	ASTM E 831



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THERMAL			
Vicat Softening Temp, Rate B/50	97	°C	ISO 306
Vicat Softening Temp, Rate B/120	99	°C	ISO 306
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	80	°C	ISO 75/Af
PHYSICAL			
Specific Gravity	1.04	-	ASTM D 792
Mold Shrinkage, flow, 3.2 mm	0.6 - 0.8	%	SABIC Method
Melt Viscosity, 240°C, 1000 sec-1	2270	poise	ASTM D 3825
Density	1.04	g/cm ³	ISO 1183
Melt Flow Rate, 220°C/10.0 kg	13	g/10 min	ISO 1133



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PROCESSING PARAMETERS	TYPICAL VALUE	UNIT
Injection Molding		
Drying Temperature	80 - 95	°C
Drying Time	2 - 4	hrs
Drying Time (Cumulative)	8	hrs
Maximum Moisture Content	0.1	%
Melt Temperature	220 - 260	°C
Nozzle Temperature	220 - 260	°C
Front - Zone 3 Temperature	215 - 240	°C
Middle - Zone 2 Temperature	205 - 225	°C
Rear - Zone 1 Temperature	190 - 210	°C
Mold Temperature	50 - 70	°C
Back Pressure	0.3 - 0.7	MPa
Screw Speed	30 - 60	rpm
Shot to Cylinder Size	50 - 70	%
Vent Depth	0.038 - 0.051	mm