

## Cycolac® Resin GX3800F

### Americas: COMMERCIAL

High impact ABS for sheet extrusion and blow molding applications. FDA food contact compliant.

TYPICAL PROPERTIES <sup>1</sup>	TYPICAL VALUE	UNIT	STANDARD
<b>MECHANICAL</b>			
Tensile Stress, yld, Type I, 5 mm/min	400	kgf/cm <sup>2</sup>	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	300	kgf/cm <sup>2</sup>	ASTM D 638
Tensile Strain, yld, Type I, 5 mm/min	3.1	%	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	31.6	%	ASTM D 638
Tensile Modulus, 5 mm/min	21200	kgf/cm <sup>2</sup>	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	680	kgf/cm <sup>2</sup>	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	22000	kgf/cm <sup>2</sup>	ASTM D 790
<b>IMPACT</b>			
Izod Impact, notched, 23°C	44	cm-kgf/cm	ASTM D 256
Izod Impact, notched, -30°C	30	cm-kgf/cm	ASTM D 256
Instrumented Impact Total Energy, 23°C	518	cm-kgf	ASTM D 3763
<b>THERMAL</b>			
Vicat Softening Temp, Rate B/50	106	°C	ASTM D 1525
HDT, 0.45 MPa, 3.2 mm, unannealed	93	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	80	°C	ASTM D 648
CTE, -40°C to 40°C, flow	1.01E-04	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	1.04E-04	1/°C	ASTM E 831
<b>PHYSICAL</b>			
Specific Gravity	1.03	-	ASTM D 792
Mold Shrinkage, flow, 3.2 mm (5)	0.6 - 0.8	%	SABIC Method
Melt Viscosity, 240°C, 100 sec <sup>-1</sup>	14000	poise	ASTM D 3825
Melt Volume Rate, MVR at 220°C/10.0 kg	4	cm <sup>3</sup> /10 min	ISO 1133

1) Typical values only. Variations within normal tolerances are possible for various colors. All values are measured at least after 48 hours storage at 230C/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 by 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.

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Dongguan Yi-Ming Plastic Chemical Co., Ltd.

如需要更多物性资料请查阅 [www.kedisujiao.com](http://www.kedisujiao.com)

备注：以上原料物性数据由厂家发布，我公司仅提供参考！数据如有变动，请联系原料生产厂家获知。我公司不承担任何法律责任！

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- Recommend initial lower temperatures settings to avoid material degradation/hang-up in die.
- Maintain melt temperature within processing range.

PROCESSING PARAMETERS	TYPICAL VALUE	UNIT
<b>Extrusion Blow Molding</b>		
Drying Temperature	80 - 90	°C
Drying Time	4 - 5	hrs
Drying Time (Cumulative)	24	hrs
Maximum Moisture Content	0.02	%
Melt Temperature (Parison)	215 - 230	°C
Barrel - Zone 1 Temperature	205 - 225	°C
Barrel - Zone 2 Temperature	205 - 225	°C
Barrel - Zone 3 Temperature	205 - 225	°C
Barrel - Zone 4 Temperature	205 - 225	°C
Adapter - Zone 5 Temperature	210 - 230	°C
Head - Zone 6 - Top Temperature	215 - 230	°C
Head - Zone 7 - Bottom Temperature	215 - 230	°C
Screw Speed	20 - 60	rpm
Extruder Feed Zone Temperature	60 - 75	°C
Mold Temperature	40 - 80	°C
Die Temperature	215 - 235	°C
<b>Sheet Extrusion</b>		
Drying Temperature	80 - 95	°C
Drying Time	4	hrs
Maximum Moisture Content	0.02	%
Melt Temperature	215 - 260	°C
Barrel - Zone 1 Temperature	170 - 200	°C
Barrel - Zone 2 Temperature	180 - 220	°C
Barrel - Zone 3 Temperature	190 - 225	°C
Barrel - Zone 4 Temperature	200 - 240	°C
Adapter Temperature	205 - 250	°C
Die Temperature	205 - 250	°C
Roll Stack Temp - Top	90 - 95	°C

- Purge material from extruder prior to shutdown.

- For extended downtime, lower barrel, head and die temperatures to 95°C (200°F). Typical data for material selection purpose. Not to be used for part or tool design.  
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PROCESSING PARAMETERS	TYPICAL VALUE	UNIT
<b>Sheet Extrusion</b>		
Roll Stack Temp - Middle	95 - 105	°C
Roll Stack Temp - Bottom	100 - 105	°C

- Purge material from extruder prior to shutdown.
- For extended downtime, lower barrel, head and die temperatures to 95°C (200°F).

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All properties, except the melt volume rate are measured on injection moulded samples.  
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