

Cycolac* Resin GPX3800

Americas: LIMITED USE

Extrusion grade. High flow, high impact. Processes well without sacrificing impact. Good in applications utilizing color concentrates.

Property

TYPICAL PROPERTIES ⁽¹⁾			
MECHANICAL	Value	Unit	Standard
Tensile Stress, yld, Type I, 5 mm/min	37	MPa	ASTM D 638
Tensile Modulus, 5 mm/min	1930	MPa	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	66	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	2060	MPa	ASTM D 790
Hardness, Rockwell R	99	-	ASTM D 785
IMPACT	Value	Unit	Standard
Izod Impact, notched, 23°C	448	J/m	ASTM D 256
Izod Impact, notched, -40°C	186	J/m	ASTM D 256
Falling Dart Imp, 23°C 3.2 mm extr sheet	47	J	SABIC Method
Falling Dart Imp, -40°C 3.2 mm extr sheet	31	J	SABIC Method
THERMAL	Value	Unit	Standard
HDT, 0.45 MPa, 6.4 mm, unannealed	93	°C	ASTM D 648
CTE, -40°C to 95°C, flow	9.18E-05	1/°C	ASTM E 831
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	Value	Unit	Standard
Specific Gravity	1.03	-	ASTM D 792
Mold Shrinkage, flow, 3.2 mm	0.5 - 0.8	%	SABIC Method
Melt Flow Rate, 220°C/10.0 kgf	3.5	g/10 min	ASTM D 1238
Melt Viscosity, 232°C, 100 sec-1	17400	poise	ASTM D 3825
OPTICAL	Value	Unit	Standard
Gloss, untextured, 60 deg (sheet)	97	-	ASTM D 523
FLAME CHARACTERISTICS	Value	Unit	Standard
UL Recognized, 94HB Flame Class Rating (3)	1.49	mm	UL 94
UV-light, water exposure/immersion	F2	-	UL 746C

Source GMD, last updated:12/29/1999

Processing

- Recommend initial lower temperatures settings to avoid material degradation/hang-up in die.

Parameter	Value	Unit
Sheet Extrusion		
Drying Temperature	80 - 95	°C
Drying Time	4	hrs
Maximum Moisture Content	0 - 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
Roll Stack Temp - Middle	95 - 105	°C
Roll Stack Temp - Bottom	100 - 105	°C

Source GMD, last updated:12/29/1999

- Purge material from extruder prior to shutdown.

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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