

SABIC CYCOLAC™ EX58

High impact ABS for sheet extrusion and blow molding applications.
Information provided by SABIC

Physical Properties	Metric	English	Comments
Specific Gravity	1.03 g/cc	1.03 g/cc	ASTM D792
Density	1.03 g/cc	0.0372 lb/in ³	ISO 1183
Viscosity	1.55e+6 cP @Shear Rate 100 1/s, Temperature 240 °C	1.55e+6 cP @Shear Rate 100 1/s, Temperature 464 °F	melt; ASTM D3825
Linear Mold Shrinkage, Flow	0.0060 - 0.0080 cm/cm @Thickness 3.20 mm	0.0060 - 0.0080 in/in @Thickness 0.126 in	SABIC method
Melt Flow	4.0 g/10 min @Load 10.0 kg, Temperature 220 °C	4.0 g/10 min @Load 22.0 lb, Temperature 428 °F	ISO 1133

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell R	102	102	ASTM D785
Tensile Strength at Break	30.0 MPa	4350 psi	50 mm/min; ISO 527
	30.0 MPa	4350 psi	5 mm/min; ASTM D638
Tensile Strength, Yield	39.0 MPa	5660 psi	5 mm/min; ASTM D638
	41.0 MPa	5950 psi	50 mm/min; ISO 527
Elongation at Break	21 %	21 %	50 mm/min; ISO 527
	32 %	32 %	5 mm/min; ASTM D638
Elongation at Yield	2.6 %	2.6 %	50 mm/min; ISO 527
	3.1 %	3.1 %	5 mm/min; ASTM D638
Tensile Modulus	1.97 GPa	286 ksi	1mm/min; ISO 527
	2.08 GPa	302 ksi	5 mm/min; ASTM D638
Flexural Yield Strength	60.0 MPa	8700 psi	2 mm/min; ISO 178
	66.0 MPa	9570 psi	1.3 mm/min, 50 mm span; ASTM D790
Flexural Modulus	2.00 GPa	290 ksi	2 mm/min; ISO 178
	2.16 GPa	313 ksi	1.3 mm/min, 50 mm span; ASTM D790
Izod Impact, Notched	4.32 J/cm	8.09 ft-lb/in	ASTM D256
	2.99 J/cm @Temperature -30.0 °C	5.60 ft-lb/in @Temperature -22.0 °F	ASTM D256
Izod Impact, Notched (ISO)	35.0 kJ/m ²	16.7 ft-lb/in ²	80*10*4; ISO 180/1A
	23.0 kJ/m ² @Temperature -30.0 °C	10.9 ft-lb/in ² @Temperature -22.0 °F	80*10*4; ISO 180/1A
Charpy Impact, Notched	3.70 J/cm ²	17.6 ft-lb/in ²	Edgew 80*10*4 sp=62mm; ISO 179/1eA
Dart Drop, Total Energy	37.0 J	27.3 ft-lb	ASTM D3763