

CYCOLAC* GPP4600 Resin

Acrylonitrile Butadiene Styrene
SABIC Innovative Plastics

Product Description			
Extrusion profile grade for coextrusion. Recommended for substrate only.			
General			
Processing Method	- Coextrusion - Profile Extrusion		
Multi-Point Data	- Coefficient of Thermal Expansion vs. Temperature (ASTM E831) - Elastic Modulus vs Temperature (ASTM D4065) - Flexural DMA (ASTM D4065) - Tensile Creep (ASTM D2990) - Tensile Stress vs. Strain (ASTM D638) - Thermal Conductivity vs. Temperature (ASTM E1530) - Viscosity vs. Shear Rate (ASTM D3835)		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.05	g/cm³	ASTM D792
Molding Shrinkage - Flow (3.20 mm)	0.50 to 0.80	%	ASTM D955
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus ²	2620	MPa	ASTM D638
Tensile Strength ³ (Yield)	50.3	MPa	ASTM D638
Flexural Modulus ⁴ (50.0 mm Span)	2690	MPa	ASTM D790
Flexural Strength ⁴ (Yield, 50.0 mm Span)	81.4	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (23°C)	320	J/m	ASTM D256
Instrumented Dart Impact 23°C, Total Energy	50.2	J	ASTM D3763
Gardner Impact 23°C, 3.20 mm, Extruded Sheet	41.0	J	Internal Method
Drop Impact Resistance ⁵	160	J/cm	ASTM D4226
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	110		ASTM D785
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load 0.45 MPa, Unannealed, 6.40 mm	100	°C	ASTM D648
1.8 MPa, Unannealed, 6.40 mm	91.1	°C	
1.8 MPa, Annealed	101	°C	
CLTE Flow: -40 to 40°C	0.000070	cm/cm/°C	ASTM E831
Transverse: -40 to 60°C	0.000070	cm/cm/°C	
Optical	Nominal Value	Unit	Test Method
Gardner Gloss (60°, Untextured)	97		ASTM D523

Notes

- ¹ Typical properties: these are not to be construed as specifications.
- ² 5.0 mm/min
- ³ Type I, 5.0 mm/min
- ⁴ 1.3 mm/min
- ⁵ Procedure B