



## PC/ABS Blend

### Polycarbonate & Acrylonitrile butadiene styrene

<b>Description</b>	
An alloy of Polycarbonate and ABS offering a favourable combination of thermal and mechanical properties.	
<b>Typical Applications</b>	
Automotive instrument panels, wheel covers, lamp housings. Household items such as smoke detectors.	
<b>Types of grades available</b>	
Flame retardant Glass filled	
<b>General Processing</b>	
Drying Time	3 to 4 hours
Drying Temperature	80C to 100C
Type of Drier	Desiccant
Purging	Run machine dry and purge with GPS
Moisture Absorption	0.3%
Other Considerations	
<b>Processing Injection Moulding</b>	
Barrel Settings	220C to 280C
Injection speed	Medium
Injection Pressure	70 to 140 MPA
Back Pressure	350 to 700 KPA
Screw Speed	40 to 70 rpm
Tool Temperature	50 to 100C
Melt Temperature	90C to 130C
Processing Stability	Good
Gate Considerations	Should be large as possible to minimise stress on moulded part. Gate land length should be as short as possible
Sprue & Runner Considerations	Keep runners as short as possible to reduce unnecessary pressure drops, use trapezoidal shape runner
<b>Processing Extrusion</b>	
Barrel Settings	250C to 270c
Screw Speed	50 – 100 rpm LD ratio 30 -1

Screen Packs	Only use course 20 -40
Haul-off / Cooling	Water bath chilled 10c
Calibration	Suitable for use with a vacuum calibrator or sizing plates.
<b>Mechanical Properties</b>	
Shrinkages	0.4% to 0.7%
Flexural Modulus	2 – 5 GPa
Tensile strength at Yield	45 -70 Mpa
<b>Physical Properties</b>	
Density	1.2
Cold Bend	N/A
Cold Flex	M/A
Elongation at Break	>50%
Tensile Modulus	1.9 – 8 MPa
General Impact Strength	Good to High
Material Finish	High Gloss
<b>Thermal Properties</b>	
Vicat Softening Temperature	120C
Heat Deflection Temperature	90C
<b>Flammability</b>	
Flammability Rating	Flame retardant grades available
<b>Weatherability</b>	
Suitability for outdoor use	Good
<b>Fillers &amp; Additives</b>	
	Flame retardant and glass fibre additives available
<b>Chemical Resistance</b>	
Resistant to	
Not resistant to	
<b>Food Contact Status</b>	
	Yes
<b>Colouring</b>	
	May be coloured on the machine by masterbatches but care should be taken to avoid dust contamination and water contamination. Very difficult to surface dye this material.

<b>REACH &amp; ROHS Compliance</b>	Yes
<b>Bonding</b>	May be cemented with solutions of PC in methylene chloride. Epoxides, or hot melt adhesives based on PA may be used as adhesives.
<b>Welding</b>	May be welded by high frequency welding or ultrasonic welding

*This information has been provided as a general guide and we suggest that you carry out your own specific tests to be sure that this material is suitable for your application.*