



PC/ABS Blend

Polycarbonate & Acrylonitrile butadiene styrene

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| Description | |
| An alloy of Polycarbonate and ABS offering a favourable combination of thermal and mechanical properties. | |
| Typical Applications | |
| Automotive instrument panels, wheel covers, lamp housings. Household items such as smoke detectors. | |
| Types of grades available | |
| Flame retardant Glass filled | |
| General Processing | |
| 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 | |
| Processing Injection Moulding | |
| 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 |
| Processing Extrusion | |
| Barrel Settings | 250C to 270c |
| Screw Speed | 50 – 100 rpm LD ratio 30 -1 |
| Screen Packs | Only use course 20 -40 |

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| Haul-off / Cooling | Water bath chilled 10c |
| Calibration | Suitable for use with a vacuum calibrator or sizing plates. |
| Mechanical Properties | |
| Shrinkages | 0.4% to 0.7% |
| Flexural Modulus | 2 – 5 GPa |
| Tensile strength at Yield | 45 -70 Mpa |
| Physical Properties | |
| 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 |
| Thermal Properties | |
| Vicat Softening Temperature | 120C |
| Heat Deflection Temperature | 90C |
| Flammability | |
| Flammability Rating | Flame retardant grades available |
| Weatherability | |
| Suitability for outdoor use | Good |
| Fillers & Additives | |
| | Flame retardant and glass fibre additives available |
| Chemical Resistance | |
| Resistant to | |
| Not resistant to | |
| Food Contact Status | |
| | Yes |
| Colouring | |
| | 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. |

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| WEEE & ROHS Compliance | Yes |
| Bonding | May be cemented with solutions of PC in methylene chloride. Epoxides, or hot melt adhesives based on PA may be used as adhesives. |
| Welding | 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.