



PVC/P Polyvinyl Chloride Flexible

<p>Description One of the most versatile compounds available in a wide range of formulations from semi rigid highly filled to soft touch clear grades. Grades can easily be formulated to suite specific applications within the softness range BSS 01 -150</p>	
<p>Typical Applications Medical face masks, ladder feet, tubes, window gaskets, automotive pedals & trim, floor tiles, foot ware, cable covering, calendared sheet.</p>	
<p>Types of grade available Crystal clear injection moulding and extrusion. Filled cable grades for extrusion Filled grades for injection moulding Nitrile blends for moulding and extrusion Flame retardant grades High temperature and low temperature grades Low marring grades Gamma stable grades Food contact grades</p>	
<p>Transmission/Crystal Grades 75 – 85%</p>	
<p>General Processing</p>	
Drying Time	N/A
Drying Temperature	N/A
Type of Drier	N/A
Purging	PMMA, GPPS
Moisture Absorption	20 – 40 MG
Other Considerations	Process control required
<p>Processing Injection Moulding</p>	
Barrel Settings	150C to 185C (do not exceed 200C)
Injection speed	Low to Medium
Injection Pressure	Low to Medium
Back Pressure	Low to Medium
Screw Speed	Low to Medium
Tool Temperature	20C to 40C
Melt Temperature	160C to 185C

Processing Stability	Residence time to be kept to a minimum
Gate Considerations	Large gates preferred such as tab gate
Sprue & Runner Considerations	Full round runners preferred. Runners to be streamlined with sharp corners to be avoided.
Processing Extrusion	
Barrel Settings	130C to 180C
Screw Speed	As fast as possible to maintain a homogenous melt
Screen Packs	Widely used
Haul-off / Cooling	Important to cool as quickly as possible
Calibration	Vacuum calibration and sizing plates
Mechanical Properties	
Shrinkages	0.5% to 3% depending on softness and density
Tensile Modulus	0.0002 – 0.0019 GPa
Tensile strength at Yield	4 -7 MPa
Physical Properties	
Density	1.18 to 1.65
Cold Bend	-20C
Cold Flex	-40C
Elongation at Break	50 -460%
General Impact Strength	Flexible
Material Finish	Good clarity and gloss with crystal grades, matt for filled
Thermal Properties	
Vicat Softening Temperature	N/A
Heat Deflection Temperature	N/A
Flammability	
Flammability Rating	Harder grades of PVC are self extinguishing. FR grades are available, mainly harder grades
Weatherability	
Suitability for outdoor use	PVC is very good for outdoor use.
Fillers & Additives	
	Calcium carbonate used as filler, nitrile blends available
Chemical Resistance	
Resistant to	Mineral acids, alkalis, oil & grease
Not resistant to	Solvents

Food Contact Status	Lead stabilised grades not suitable for food contact but calcium and barium stabilised grades are suitable
Colouring	Masterbatch, compounded
WEEE & ROHS Compliance	Some grades contain lead but all are available lead free which will comply
Bonding	Flexible PVC can be bonded using solvents based adhesives there are many weld adhesives on the market suitable for bonding flexible PVC to other materials and polymers.
Welding	High frequency, hot plate and hot air 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.