

TPU “HARD” TECHNICAL DATA SHEET

Product Feature :

“HARD” is an ester based thermoplastic polyurethane elastomer with good transparency, good mechanical properties, good heat resistance, humidity resistance, and excellent flexibility under very low temperature. It is both an injection and extrusion molding grade for high-end products

Product Propert:

Typical Properties	Test Method	Unit	Typical values*
Form	N/A	-	Granules
Color	N/A	-	Transparent
Hardness	ASTM D-2240	Shore A	98
100% Modulus of elasticity	ASTM D412	MPa	13
Melt Volume-Flow Rate (MVR)/ 215°C / 5 Kg	ASTM D-1238	cm ³ /10min	41
Tensile Stress	ASTM D-412	MPa	37
Tear Strength	ASTM D-624	N/mm	153
Ultimate Elongation	ASTM D-412	%	650
Yellow degree	ASTM E-313	---	6
Haze (2mm)	ASTM D-1003	%	4

*Above data for reference only.

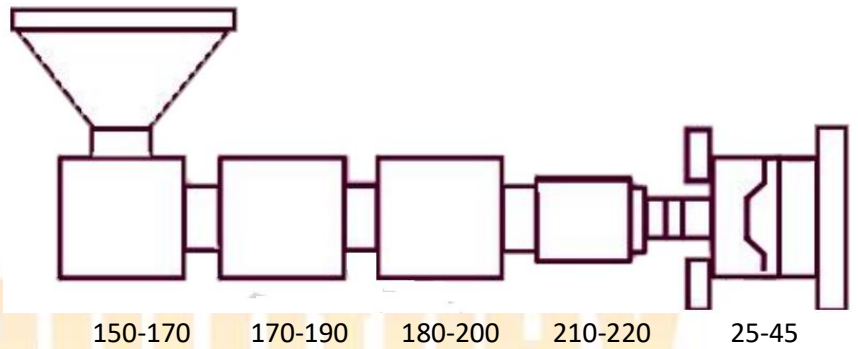
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Processing Guidelines :

Injection Moulding Guideline

Mold Shrinkage:	0.015 ~ 0.025 inch/inch
Injection Speed:	Medium-Fast
Injection Pressure:	Medium-Fast
Back Pressure:	Low-Medium
Holding Pressure	Sufficient to pack the mould
Cooling:	Can be demoulded when parts have sufficiently cooled

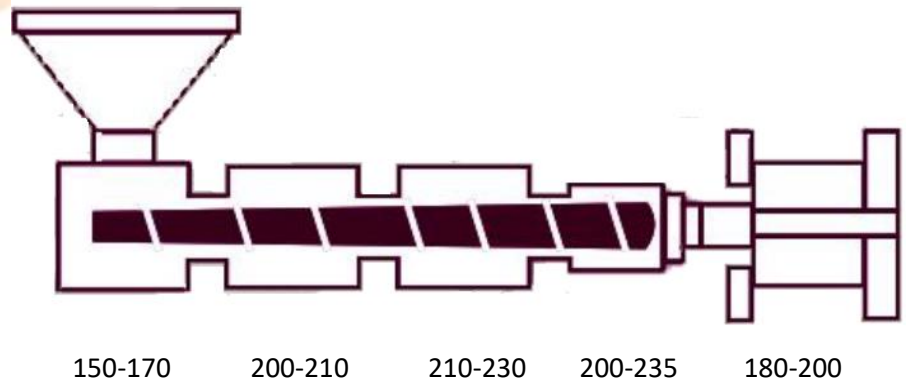
Barrel Temperature (°C)



Extrusion Guidelines:

L/D Ration:	20:1 – 25:1
Compression Ratio:	2.5 – 3.0
Breaker Plate/Screen:	Both should be used
Draw Down:	5 – 10%
Cooling	Cold water bath

Barrel Temperature (°C)



Processing Notes:

- A、 Drying before processing, it is recommended to dry for 3-5 hours at 90 degrees centigrade. If it is damp, the drying time will be lengthened
- B、 Cleaning the screw and die with PP or PE before and after processing.
- C、 The gate and runner can be recycled, but less than 15%.
- D、 PE/EVA base color masterbatch is better for coloring.

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