

Product Feature :

TPU 80A is a thermoplastic polyurethane elastomer. It has good 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.

Applications:

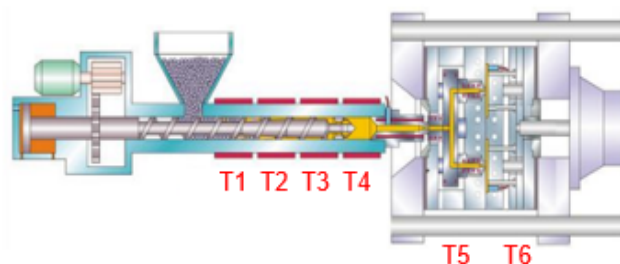
Wire & cable, high pressure oil tubes, conveyor belts, shoes, seals, screen packs.

Typical Properties	Test Method	Units	Typical values*
Form	N/A	-	Granules
Color	N/A	-	Transparent
Hardness	ASTM D-2240	Shore A	80
Gravity	ASTM D-792	g/cm ³	1.18
100% Modulus of elasticity	ASTM D412	MPa	6
Tensile Stress	ASTM D-412	MPa	35
Tear Strength	ASTM D-624	N/mm	100
Ultimate Elongation	ASTM D-412	%	600
DIN Abrasion	DIN 53516	mm ³	60
Yellow Index	ASTM E313	--	4

* All these physical properties are based on injection molded samples, which are conditioned at 23 °C/50% for 24h. Above values are typical values and should not be used as specifications.

Injection Moulding Guidelines

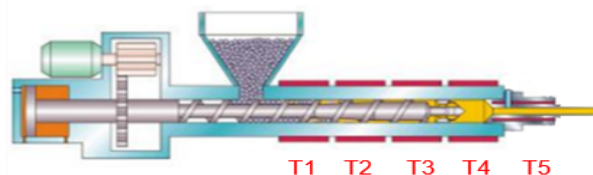
Mold Shrinkage:	0.015 ~ 0.025 inch/inch
Injection Speed:	Medium - Fast
Injection Pressure:	Medium - Fast
Back Pressure:	Low - Medium
Holding Pressure:	Sufficient to pack the mould
Cooling:	Can be demoulded when parts have sufficiently cooled



Barrel Temperature (°C)	T1: 110-120	T2: 140-150	T3: 170-180	T4: 170-185	T5/T6: 25 - 45
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Extrusion Guidelines

L/D Ratio:	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)	T1: 110-120	T2: 140-150	T3: 170-180	T4: 170-185	T5/T6: 140 - 150
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Processing Notes:

- A、 Drying before processing, it is recommended to dry for 3-5 hours at 80 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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