

TPE88A translucent

- Temperature print: 260-280 °C for 2,90 mm filament / 230–250 °C for 1,75 mm filament
- Temperature pad: about 60 - 80°C

Material data sheet for TPE88A translucent:

| Mechanical properties | | |
|----------------------------------|-------------------------|--------------------------------|
| Hardness | 88 ShoreA | DIN ISO 7619 |
| Density | 0.880 g/cm ³ | DIN EN ISO 1183-1 |
| Tensile Strength ¹ | 5.5 MPa | DIN 53504/ISO 37 |
| Elongation at Break ¹ | 300 % | DIN 53504/ISO 37 |
| Tear Resistance | 27.0 N/mm | ISO 34-1 Methode B (b)(Graves) |
| CS 72h/23°C | 42 % | DIN ISO 815-1 Method A |
| CS 24h/70°C | 63 % | DIN ISO 815-1 Method A |
| CS 24h/100°C | 83 % | DIN ISO 815-1 Method A |

¹ Deviating from ISO 37 standard test piece S2 is tested with a traverse speed of 200 mm/min.

Processing Guideline Injection Molding

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| Cylinder temperature | 180 - 200 - 220 °C, max. 250 °C (360 - 390 - 430 °F, max. 480 °F) |
| Hotrunner | Hot runner temperatures: 200 -250 °C (390 - 480 °F). The runner should be empty after a maximum of 2 - 3 shots. |
| Injection pressure | 200 - 1000 bar (2900 - 14504 psi) (depending on the size and weight of the part). |
| Injection rate | In general, the fill time should not be more than 1–2 seconds. |
| Hold pressure | We recommend to derive the optimum hold pressure from determining the solidification point, starting with 40 % - 60 % of the required injection pressure. |
| Back pressure | 20 - 100 bar; if colour batches are used, higher back pressure is necessary. |
| Screw retraction | If an open nozzle is used processing with screw retraction is advisable. |
| Mold temperature | 25 - 40 °C (77 - 104 °F) |
| Pre drying | Pre drying of the material is not necessary; if surface moisture forms as a result of changes in temperature, the material should be dried for 2 - 4 hours at 60 - 80 °C (140° F). |
| Needle valve | With materials < 50 Shore A the use of a needle valve is advisable. |
| Screw geometry | Standard 3-zone polyolefine screw. |
| Residence time | The residence time is to be set as short as possible with a maximum of 10 minutes. |
| Cleaning recommendation | For cleaning and purging of the machine it is appropriate to use polypropylene or polyethylene. Machine must be PVC-free. |

Processing Guideline Extrusion

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| Cylinder temperature | 160 - 180 - 200 °C, max. 250 °C (320 - 360 - 390 °F; max. 480 °F) |
| Screw geometry | Standard three-zone screw (e.g. polyolefin screw). The screw must be able to provide sufficient shearing. |
| L/D ratio | At least 25 |
| Compression ratio | At least 3.5 : 1 |
| Screens / breaker plate | A breaker plate and a screen pack are generally recommended in the extruder configuration in order to increase pressure. |
| Die land | ≤ 3 mm ($\leq 0,12$ in.) |
| Extruder Head | Ca. 200 °C (390 °F) |
| Die temperature | Ca. 200 - 230 °C (390 - 450 °F) |
| Pre drying | Pre drying of the material is not necessary; if surface moisture forms as a result of changes in temperature, the material should be dried for 2 - 4 hours at 60 - 80 °C (140 - 175 °F). |
| Calibration | Generally not necessary; support elements may be required when extruding THERMOLAST® compounds with high hardness or when coextruding with standard thermoplastics. |
| Cleaning recommendation | For cleaning and purging of the machine it is appropriate to use polypropylene or polyethylene. Machine must be PVC-free. |