

TF3ATL
THERMOLAST® K
Product properties

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|---------------------------|------------------------------|
| Compound name | TF3ATL |
| Color / RAL DESIGN | translucent |
| Processing Method | Extrusion, Injection Molding |

Mechanical properties

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|---|-------------------------|--------------------------------|
| Hardness | 32 ShoreA | DIN ISO 7619-1 |
| Density | 0.881 g/cm ³ | DIN EN ISO 1183-1 |
| Tensile Strength ¹ | 8.7 MPa | DIN 53504/ISO 37 |
| Elongation at Break ¹ | 1004 % | DIN 53504/ISO 37 |
| Tear Resistance | 9.8 N/mm | ISO 34-1 Methode B (b)(Graves) |

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

All values published in this data sheet are rounded average values.

This datasheet is an extract of the KRAIBURG TPE program. Please contact KRAIBURG TPE to select the compound suitable for the requirements.

Disclaimer: The information provided in this documentation corresponds to our knowledge on the subject at the date of its publication and may be subject to revision as new knowledge and data becomes available. All values reported are typical values based on sample test results and are not a guarantee of performance. The responsibility to conduct testing to determine suitability of use for the particular process or end-use application remains with the customer. KRAIBURG TPE does not warrant or assume any liability with regards to the use of the information presented in this document.

TF3ATL
THERMOLAST® K
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 color 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) |
| Predrying | 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). |
| 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. |

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TF3ATL
THERMOLAST® K
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 (<= 0,12 in.) |
| Extruder Head | Ca. 200 °C (390 °F) |
| Die temperature | Ca. 200 - 230 °C (390 - 450 °F) |
| Predrying | 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. |

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