

TF1STL (FC/S Series)

THERMOLAST® K

Applications with food contact; super soft

Typical applications

- Baits
- Cushioning
- Fun articles
- Function and design elements
- Grip applications
- Protectors
- Toys

Material advantages

- Adhesion to PP
- Applications with food contact
- Dry surface
- Easy processing
- EN71/3
- Excellent mechanical properties at low hardness
- FDA - Code of Federal Regulations (CFR), Title 21
- Pleasant surface feel (Soft touch)
- Regulation (EU) No 10/2011

Processing Method: Injection Molding

Product properties

Compound name	TF1STL
Series	FC/S
Color / RAL DESIGN	translucent

Mechanical properties

Hardness	75 VLRH	DIN ISO 27588 (D=6mm)
Density	0.880 g/cm ³	DIN EN ISO 1183-1
Tensile Strength ¹	2.0 MPa	DIN 53504/ISO 37
Elongation at Break ¹	750 %	DIN 53504/ISO 37
Tear Resistance	4.0 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.

Info: TF0STT, TF1STT and TF2STT: Risk of blocking due to heat sensibility (important for transport and storage)

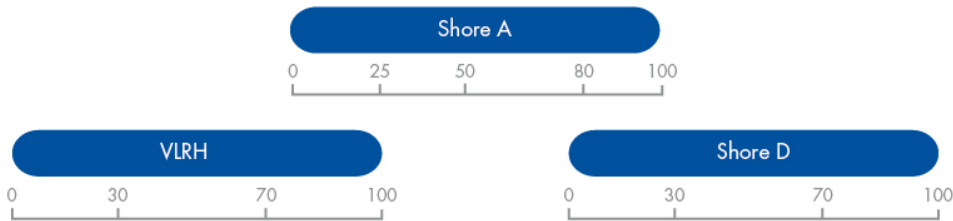
All values published in this data sheet are rounded average values.

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.

VLRH - Very Low Rubber Hardness

VLRH - Very Low Rubber Hardness (acc. DIN ISO 27588)



Shore A (DIN ISO 7619)	14	7
VLRH (6 mm) (DIN ISO 27588)	83	74

The comparison between Shore A and VLRH is just a reference, below 15 Shore A, the VLRH is more accurate. KRAIBURG TPE uses only the VLRH test method in this hardness range.

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Processing Guideline Injection Molding

Cylinder temperature	140 - 160 - 180 °C, max. 220 °C (280 - 320 - 360 °F, max. 430 °F)
Hotrunner	Hot runner temperatures: 160 - 180 °C (320 - 360 °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	The use of a needle valve nozzle 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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