

**FC/S Series**
**THERMOLAST® K**

The FC/S Series consists of extremely soft materials for applications with food contact. They are available in natural-colored, translucent and highly transparent versions. The materials have a dry feel.

**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 compliant
- Pleasant surface feel (Soft touch)
- Regulation (EU) 10/2011

**Processing Method:** Injection Molding

	Color	Hardness VLRH DIN ISO 27588 (D=6mm) VLRH	Density DIN EN ISO 1183-1 g/cm <sup>3</sup>	Tensile Strength <sup>1</sup> DIN 53504/ISO 37 MPa	Elong. at Break S2 <sup>1</sup> DIN 53504 / ISO 37 %	Tear Resistance DIN ISO 34-1 N/mm
<b>TF0STL</b>	translucent	51	0.870	1.5	800	3.0
<b>TF0STT</b>	transparent	73	0.880	0.5	500	2.0
<b>TF1SNT</b>	natural	74	1.010	2.0	700	4.0
<b>TF1STL</b>	translucent	75	0.880	2.0	750	4.0
<b>TF1STT</b>	transparent	83	0.880	0.7	350	
<b>TF2SNT</b>	natural	83	1.040	3.0	750	8.0
<b>TF2STL</b>	translucent	81	0.880	3.0	700	7.0
<b>TF2STT</b>	transparent	85	0.880	0.7	500	

<sup>1</sup> 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)

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.

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All values published in this data sheet are rounded average values.  
Specification limits are based on three-fold standard deviation from the average value.

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***CUSTOM-ENGINEERED TPE AND MORE***

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**Processing Guideline Injection Molding**

Cylinder temperature	180 - 160 - 140° C max. 220 °C (356 - 320 - 284 °F, max. 428 °F)
Hotrunner	Hot runner temperatures: 160 -180 °C (320 - 356 °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 - 50 bar (285 - 710 psi); 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°C (140° F).
Needle shut-off	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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