

FC Series
THERMOLAST® K

The FC Series is your natural-colored and translucent material solution for applications with food contact. The series is characterized, among other things, by its excellent adhesion to PP.

Typical applications

- Function and design elements
- Grip applications
- Household articles
- Packaging (for food and careproducts)
- Razors
- Seals
- Toothbrushes
- Toys

Material advantages

- Adhesion to PP
- Applications with food contact
- Easy coloring
- EN71/3
- Excellent mechanical properties
- Excellent processing behavior
- FDA compliant
- Halogen-free
- In natural or translucent available
- Pleasant surface feel (Soft touch)
- Recyclable
- Regulation (EU) 10/2011

Processing Method: Injection Molding

	Color	Hardness Shore A DIN ISO 7619 ShoreA	Density DIN EN ISO 1183-1 g/cm ³	Tensile Strength ¹ DIN 53504/ISO 37 MPa	Elong. at Break S2 ¹ DIN 53504 / ISO 37 %	Tear Resistance DIN ISO 34-1 N/mm	Compr. Set 72h/RT DIN ISO 815 %	Compr. Set 24h/70°C DIN ISO 815 %	Compr. Set 24h/100°C DIN ISO 815 %
TF2CGN	natural	21	1.100	3.5	700	10.0	11	34	69
TF2CGT	translucent	18	0.880	5.0	800	10.0	12	30	58
TF3CGN	natural	29	1.100	5.0	800	10.0	14	25	60
TF3CGT	translucent	30	0.880	6.0	900	10.0	15	35	61
TF4CGN	natural	39	1.100	5.5	850	11.0	15	30	65
TF4CGT	translucent	38	0.880	7.0	850	10.0	19	35	64
TF5CGN	natural	49	1.100	6.0	850	14.0	19	37	68
TF5CGT	translucent	50	0.880	7.5	800	13.0	21	42	65
TF6CGN	natural	60	1.100	6.5	750	16.0	25	44	71

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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TF6CGT	translucent	60	0.880	6.5	750	16.0	29	47	75
TF7CGN	natural	70	1.100	6.5	700	20.0	32	50	75
TF7CGT	translucent	68	0.880	7.5	650	18.0	29	52	81
TF8CGN	natural	78	1.100	6.0	600	22.0	37	53	78
TF8CGT	translucent	79	0.880	7.0	550	23.0	36	51	76
TF9CGN	natural	88	1.100	5.0	400	26.0	48	69	81
TF9CGT	translucent	88	0.880	5.5	300	28.0	43	67	78

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.
Specification limits are based on three-fold standard deviation from the average value.

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Processing Guideline Injection Molding

Cylinder temperature	220 - 200 - 180 °C max. 250 °C (428 - 392 - 356 °F, max. 482 °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 - 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 - 80 °C (140 - 175 °F).
Needle shut-off	With materials < 50 Shore the use of a needle seal 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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