

FG/SF Series

THERMOLAST® K

The FG/SF Series is your material solution for applications in automotive interior. It allows parts with excellent surface appearance and provides very good processability.

Typical applications

- Automotive Interior
- Car mats
- Function and design elements
- Soft touch for grips, switches and mats
- Soft touch surface (thumb wheels, push buttons, switches)

Material advantages

- Adhesion to PP
- Excellent abrasion resistance
- Excellent processing behavior
- For injection molding
- Fulfills specifications for automotive interior
- Perfect surface finish
- Smooth, non-tacky feel

Processing Method: Injection Molding

	Color / RAL DESIGN	Hardness DIN ISO 7619-1 ShoreA	Density DIN EN ISO 1183-1 g/cm ³	Tensile Strength ¹ DIN 53504/ISO 37 MPa	Elongation at Break ¹ DIN 53504/ISO 37 %	Flow Spiral [760 bar, 200 °C] DSOP Lab 2032 cm
TC5FEZ	black	52	0.930	6.0	750	110.0
TC6FEZ	black	62	0.930	6.0	700	105.0
TC7FEZ	black	72	0.930	6.0	600	95.0
TC8FEZ	black	82	0.930	7.5	600	80.0

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.



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Processing Guideline Injection Molding

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.

