

UV/FG Series
THERMOLAST® K

The UV/FG Series is your material solution for applications requiring high UV resistance. It is particularly appropriate for automotive exterior and interior components.

Typical applications

- Cowls gaskets
- Roof rims
- Soft touch for grips, switches and mats
- Water deflectors
- Window encapsulations

Material advantages

- Easy flowing
- Excellent mechanical properties
- Fulfills indoor odor test
- Perfect adhesion to PP
- Perfect surface finish
- Tested according PV3930 for outdoor use

Processing Method: Injection Molding

	Color	Hardness Shore A DIN ISO 7619	Hardness Shore D DIN ISO 7619 ShoreD	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 %	Spiral Flow [70 bar] cm
TC0LEZ	black		34	0.980	20.0	600	58.0	42	63	86	49.0
TC3LEZ	black	33		0.980	6.0	800	8.0	19	34	68	107.0
TC4LEZ	black	42		0.980	6.0	800	10.0	20	41	70	94.0
TC5LEZ	black	55		0.980	7.0	800	15.0	23	44	73	87.0
TC6LEZ	black	63		0.980	9.0	750	19.0	25	43	72	76.0
TC7LEZ	black	70		0.980	10.0	700	23.0	30	50	78	67.0
TC8LEZ	black	80		0.980	11.0	750	29.0	38	49	70	58.0
TC9LEZ	black	89		0.980	14.0	650	39.0	38	57	77	51.0

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

Tested on 2 mm sample plaque, under artificial weathering according to PV3930 with two year cycles, the color change is > 4 on greyscale VW3930 weathering for warm and humid conditions: Test time 1600 h / Rel. moisture 60 to 80 % / Temperature of sample compartment 35 °C to 45 °C / Radiation dosage 350 MJ/m²

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.

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

Flow Spiral



Test conditions: 600 bar
(specific pressure) / 200 °C
Flow Spiral Dimensions 2 mm x 5 mm

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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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