

**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 specifications for automotive interior
- Perfect adhesion to PP
- Perfect surface finish
- Tested according PV3930 for outdoor use

**Processing Method:** Injection Molding

	Color / RAL DESIGN	Hardness DIN ISO 7619 ShoreA	Hardness DIN ISO 7619	Density DIN EN ISO 1183-1 g/cm <sup>3</sup>	Tensile Strength <sup>1</sup> DIN 53504/ISO 37 MPa	Elongation at Break <sup>1</sup> DIN 53504/ISO 37 %	Tear Resistance ISO 34-1 Methode B (b)(Graves) N/mm	CS 72 h/23 °C DIN ISO 815-1 Method A %	CS 24 h/70 °C DIN ISO 815-1 Method A %	CS 24 h/100 °C DIN ISO 815-1 Method A %	Flow Spiral [760 bar, 200 °C] DSOP Lab 2032 cm
<b>TC3LEZ</b>	black	33		0.980	6.0	800	8.0	19	34	68	107.0
<b>TC4LEZ</b>	black	42		0.980	6.0	800	10.0	16	34	59	94.0
<b>TC5LEZ</b>	black	55		0.980	7.0	800	15.0	23	44	73	87.0
<b>TC6LEZ</b>	black	63		0.980	9.0	750	17.0	23	39	69	76.0
<b>TC7LEZ</b>	black	70		0.980	10.0	700	21.0	28	45	69	67.0
<b>TC8LEZ</b>	black	80		0.980	11.0	750	28.0	34	55	78	58.0
<b>TC9LEZ</b>	black	89		0.980	14.0	650	39.0	38	57	77	51.0
<b>TC0LEZ</b>	black		35	0.980	20.0	600	58.0	42	63	86	49.0

<sup>1</sup> 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

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.

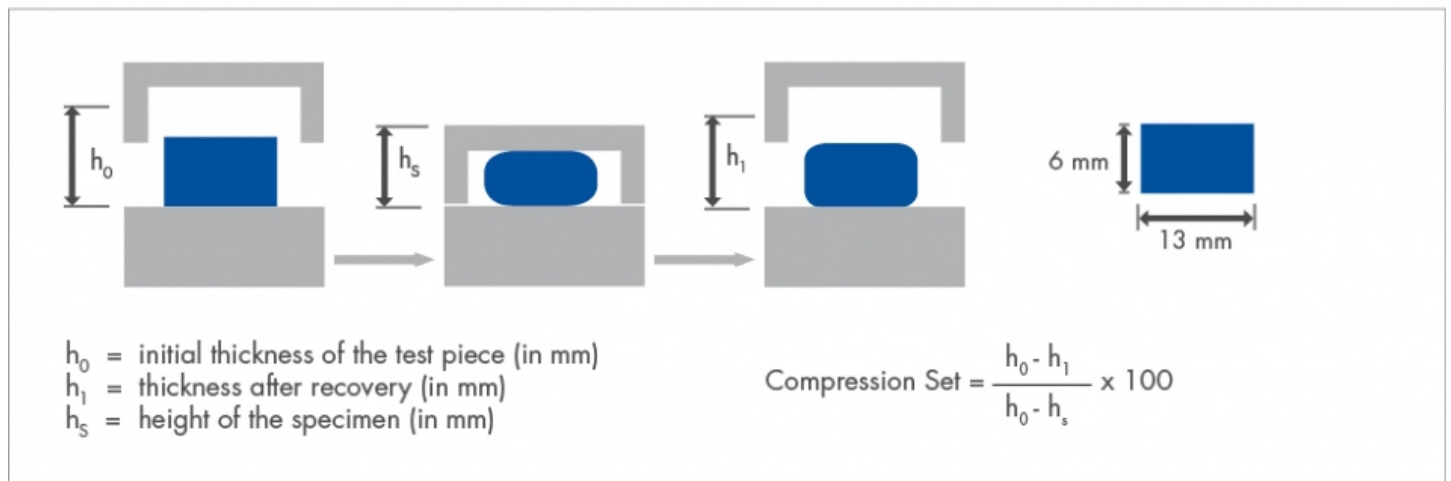
weathering for warm and humid conditions: Test time 1600 h / Rel. moisture 60 to 80 % / Temperature of sample compartment 35 °C to 45 °C / Radiation dosage 350 MJ/m<sup>2</sup>

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

### Compression Set

# Compression Set (acc. DIN ISO 815)

For the compression set testing the following specimen is used:  
The specimen is a cylindrical disk shaped 6 mm thick and 13 mm in diameter.



The specimen is compressed by 25%. The compressed specimen is heated to the test temperature. DIN ISO 815 describes two methods.

**Method A:** The specimen is allowed to recover immediately after its aging in the oven and then cooled down to room temperature. After 30 minutes the thickness of the specimen is measured and the compression set calculated.

**Method B:** The specimen is cooled down to room temperature after its aging in the oven and then allowed to recover.

Test results gained from method B are in general higher than from method A.

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**Flow Spiral**



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

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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 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° 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.

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