KRAIBURG TPE

Datasheet

FC/CM2 Series

THERMOLAST® K

The FC/CM2 series is your material solution for fatty food contact applications. It has an extremely low migration potential and good organoleptic properties. The compounds are available in translucent colors or pre-colored.

Typical applications

- Closures
- Function and design elements
- Household articles
- Membranes
- Packaging (for food and careproducts)
- Seals
- Soft touch
- Squeeze bottles
- Valves

Material advantages

- Adhesion to PP
- Applications with food contact
- Easy coloring
- Excellent mechanical properties
- FDA - Code of Federal Regulations (CFR), Title 21
- For injection molding
- Low density
- Perfect surface finish
- Recyclable
- Regulation (EU) No 10/2011

Processing Method: Injection Molding

	Color / RAL DESIGN	**Hardness** DIN ISO 7619-1 ShoreA	**Density** DIN EN ISO 1183-1 g/cm3	**Tensile Strength** [1] DIN 53504/ISO 37 MPa	**Elongation at Break** [1] 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 %
TF4CMB	translucent	40	0.900	11.0	900	7.5	20
TF5CMB	translucent	50	0.900	12.5	900	14.5	22
TF6CMB	translucent	60	0.900	14.5	900	23.5	22
TF7CMB	translucent	70	0.900	15.0	900	31.0	26
TF8CMB	translucent	80	0.900	17.0	900	42.5	30

[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 - 190 - 200 °C, max. 235 °C (360 - 370 - 390 °F, max. 445 °F)
Hotrunner	Hot runner temperatures: 200 - 235 °C (390 - 455 °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) The use of mold release agents can have an influence on the microbiological resistance.
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°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.