

THERMOLAST® K TC5FTN (Series: FR2)
KRAIBURG TPE - Thermoplastic Elastomer
General Information
Product Description

The FR2 series is your material solution for applications with high flame-retardant requirements. The compounds are halogen-free according to IEC 61249-2-21. The UL94 V-0 (1.5 mm) certificate and the classification according to DIN EN 45545-2 R22 HL2 and DIN EN 45545-2 R23 HL3 is valid for available hardness range and for natural and colored compounds.

Typical applications

- Gaskets for electric and electronic applications e.g. cable boxes
- Cable management systems e.g. cable holders, cable glands and grommets
- Electrical insulation for busbars
- Applications in railway sector

Material advantages

- Halogen-free (according to IEC 61249-2-21)
- Fulfills railway requirements such as high LOI, low toxicity and smoke density
- Self-extinguishing, no release of burning droplets
- Adhesion to PP
- In-process recycling possible
- Precoloration in all colors
- Temperature stability up to 85 °C
- High glow-wire flammability index (GWFI)
- No silicones added
- No interaction with copper
- Stability in conditions up to 60 °C and 75% humidity

Regulations / Approvals

- UL 94 V-0 (1.5 mm)
- DIN EN 45545-2 R22 HL2
- DIN EN 45545-2 R23 HL3
- IEC 60695-2-12:2021-10 (GWFI) 960 °C / 2 mm

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Additive	• Flame Retardant		
Features	• Flame Retardant • Good Adhesion • Good Colorability	• Good Thermal Stability • Halogen Free • Recyclable Material	• Self Extinguishing
Uses	• Electronic Insulation • Gaskets	• Grommets • Seals	
Appearance	• Natural Color		
Processing Method	• Extrusion	• Injection Molding	

Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	1.09	g/cm ³	ISO 1183
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress ² (Break)	508	psi	ISO 37
Tensile Elongation ² (Break)	650	%	ISO 37
Tear Strength ³	77.1	lbf/in	ISO 34-1
Compression Set ^{4, 5}			ISO 815
73°F, 72 hr	10	%	
158°F, 24 hr	60	%	



Hardness	Nominal Value	Unit	Test Method
Shore Hardness (Shore A)	50		ISO 48-4
Flammability	Nominal Value	Unit	Test Method
Flame Rating (0.06 in)	V-0		UL 94

Notes

¹ Typical properties: these are not to be construed as specifications.

² Type S2, 7.9 in/min

³ Method Bb, Angle (Nicked)

⁴ Type 1

⁵ Method A

