

**THERMOLAST® K TC4FRN (Series: FR1)**
**KRAIBURG TPE - Thermoplastic Elastomer**
**General Information**
**Product Description**

The FR1 series is your material solution for applications with flame retardant requirements. The compounds are halogen-free according to IEC 61249-2-21. The UL94 V-0 (3.0 mm) certificate is valid for available hardness range and for natural and coloured compounds.

**Typical applications**

- Gaskets for electric and electronic applications e.g. cable boxes
- Gaskets for fire safety doors
- Cable management systems e.g. cable holders, cable glands and grommets

**Material advantages**

- Halogen-free (according to IEC 61249-2-21)
- 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)
- Stability in conditions up to 60 °C and 75% humidity

**Regulations / Approvals**

- UL 94 V-0 (3 mm)
- IEC 60695-2-12:2021-10 (GWFI) 960 °C / 2 mm

**General**

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

**Properties <sup>1</sup>**

Physical	Nominal Value	Unit	Test Method
Density	1.13	g/cm <sup>3</sup>	ISO 1183
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress <sup>2</sup> (Break)	290	psi	ISO 37
Tensile Elongation <sup>2</sup> (Break)	550	%	ISO 37
Tear Strength <sup>3</sup>	74.2	lbf/in	ISO 34-1
Compression Set <sup>4, 5</sup>			ISO 815
73°F, 72 hr	9.0	%	
158°F, 24 hr	30	%	
Hardness	Nominal Value	Unit	Test Method
Shore Hardness (Shore A)	37		ISO 48-4
Flammability	Nominal Value	Unit	Test Method
Flame Rating (0.12 in)	V-0		UL 94

