

THERMOLAST® K TC9FRZ (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	• Latin America	• North America
Additive	• Flame Retardant		
Features	• Flame Retardant	• Good Thermal Stability	• Self Extinguishing
	• Good Adhesion	• Halogen Free	
	• Good Colorability	• Recyclable Material	
Uses	• Gaskets	• Grommets	
Appearance	• Black		
Processing Method	• Extrusion	• Injection Molding	

Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	1.10	g/cm ³	ISO 1183
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress ² (Break)	870	psi	ISO 37
Tensile Elongation ² (Break)	550	%	ISO 37
Tear Strength ³	171	lbf/in	ISO 34-1
Compression Set ^{4, 5}			ISO 815
73°F, 72 hr	35	%	
158°F, 24 hr	55	%	
Hardness	Nominal Value	Unit	Test Method
Shore Hardness (Shore A)	87		ISO 48-4
Flammability	Nominal Value	Unit	Test Method
Flame Rating (0.12 in)	V-0		UL 94



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

