

THERMOLAST® K TC7FTN (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) | 725 | psi | ISO 37 |
| Tensile Elongation ² (Break) | 650 | % | ISO 37 |
| Tear Strength ³ | 97.1 | lbf/in | ISO 34-1 |
| Compression Set ^{4, 5} | | | ISO 815 |
| 73°F, 72 hr | 18 | % | |
| 158°F, 24 hr | 70 | % | |



| Hardness | Nominal Value | Unit | Test Method |
|--------------------------|----------------------|-------------|--------------------|
| Shore Hardness (Shore A) | 68 | | 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

