

THERMOLAST® K TF4THT

Technical DataSheet | Supplied by Kraiburg

THERMOLAST® K TF4THT is a highly transparent, smooth, water-insoluble TPE (thermoplastic elastomer) grade present as firm elastic granules. Exhibits adhesion to PP, excellent processing behavior, excellent transparency and non-tacky feel. Moreover, it is incompatible with strong oxidants. It can be processed using injection molding. Suitable for food contact applications. Typical applications for THERMOLAST® K TF4THT include function & design elements, grip applications, household articles, packaging (for food and care products), razors, seals, toothbrushes and toys. Complies with REACH (Registration, Evaluation, Authorization and Restriction of Chemicals), Code of Federal Regulations, Title 21 (CFR 21) "FDA", EN71/3 and Regulation (EU) No. 10/2011.

Product Type	Unspecified TPE > Unspecified TPE
Physical Form	Granules
Appearance	Transparent
Product Status	AVAILABILITY NOT CONFIRMED
Geographical Availability	Africa, Asia / Pacific, Central and Eastern Europe, Middle East and Central Asia, North America, South and Central America, Western Europe
Applications/ Recommended for	Packaging Sealants, seals & gaskets Households products/ Consumer Goods > Toys Healthcare / Medical > Toothbrushes Households products/ Consumer Goods > Grip Injection molding - thermoplastics
Food contact approval	Yes
Biodegradable	No
Labels/Agency Rating	REACH, Title 21 (CFR 21) "FDA", EN71/3, Regulation (EU) No. 10/2011
Key Features	Adhesion, Good Food contact approved Transparency, High Elasticity, High Processability, Good

THERMOLAST® K TF4THT Properties

Physical	Value & Unit	Test Condition	Test Method
Density	0.88 g/cm ³		DIN EN ISO 1183-1
Density, Bulk	0.45 - 0.7 g/cm ³		

Mechanical	Value & Unit	Test Condition	Test Method
Tensile Strength	4.5 MPa	Deviating from ISO 37 standard test piece S2 is tested with a traverse speed of 200 mm/min	DIN 53504/ISO 37
Elongation at Break	600 %	Deviating from ISO 37 standard test piece S2 is tested with a traverse speed of 200 mm/min	DIN 53504/ISO 37
Hardness, Shore A	38		DIN ISO 7619

Thermal	Value & Unit	Test Condition	Test Method
Melting Point	> 120 °C		

Flammability	Value & Unit	Test Condition	Test Method
Flash Point	> 250 °C		

Elastomers	Value & Unit	Test Condition	Test Method
Tear Resistance	9 N/mm		ISO 34-1 Method B (b)

Optical	Value & Unit	Test Condition	Test Method
Haze	11 %	2mm Plaque	ASTM D 1003

THERMOLAST® K TF4THT Processing Guidelines

Injection Molding	Value & Unit	Test Condition	Test Method
Injection Rate	1 - 2 seconds		
Back Pressure	20 - 100 bar		
Mold Temperature	50 - 60 °C		
Residence Time	< 10 minutes		
Cylinder temperature	180 - 250 °C		
Hotrunner Temperature	180 - 220 °C		
Injection Pressure	200 - 1000 bar		
Drying Time	2 - 4		
Drying Temperature	60 - 80 °C		

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