TRANSFLAM

Grade K vs FH

What is the difference between Grade K and Grade FH?

PRODUCT SHEET

HIGHLIGHTS

- Excellent fire resistance and protection against flame propagation
- Improved abrasion and impact resistance
- Cost competitive solution for typical applica tions
- Applicable on steel cord and textile belts
- In compliance with electrical and safety require- ments of many international standards

What is the difference between Grade K and Grade FH?

Both grades, **K and FH**, belong to the group of Flame Retardant compounds and fulfil the requirements according to ISO 340 with covers and antistatic according to ISO 284.

Grade K is referred to in several standards. The table below gives an overview of the minimum requirements according to each standard.

APPLICATIONS

- Underground mining
  Hard rock mining
- Cement industry
- Steel industry
- Grain and sugar industries
  Mineral processing plants
- Overland conveyors
  Paper and wood industries
  Port operations
  Power and heating plants
  Recycling industry
  Tunnelling

AVAILABLE FOR THE FOLLOWING BELT TYPES

- Multitrans
- Sempercord
- Metalcord
- Metaltrans
- Autostable
- Transpipe
- Ripstop
- Translev
- Biathlon

	Standard	Standard Description	Tensile Strength [MPa]	Elongation at Break [%]	Abrasion (non-rotating) [mm3]
1	DIN22131 [withdrawn]	Steelcord conveyor belts for hoisting and conveying	20	400	200
2	ISO15236 [replaces DIN22131]	Steel cord conveyor belts	15	350	200
3	ISO22721	Conveyor belts; Specification for rubber- or plastics- covered conveyor belts of textile construction for underground mining	20	400	200

Sempertrans identified a market demand for flame retardant compounds, such as grade K, with improved mechanical properties during the last decades. This demand mainly comes from hard rock applications, where the impact, cut & gouge, and abrasion resistance of a K-grade compound was insufficient.

Subsequently, Sempertrans developed its FH-grade to fill this niche and provide an almost DIN-X (or AS-M) grade similar compound with flame retardant properties.

The table below shows the minimum mechanical properties of Sempertrans FH-grade, also fulfilling the requirements according to ISO 340 with covers and antistatic according to ISO 284.

	Grade	Tensile Strength [MPa]	Elongation at Break [%]	Abrasion (non-rotating) [mm3]
1	FH	20	500	100

Both grades fulfill the requirements of ISO 340 for covers and ISO 284 for antistatic properties. However, Grade FH provides an almost DIN-X (or AS-M) grade similar compound with improved mechanical properties compared to Grade K.