FKM Fluorine Rubber Heat-shrinkable Tubing

FKM · Heat-shrinkable Tubing Series



Description

FKM fluorine rubber heat-shrinkable tubing is made of radiation crosslinking modified fluorine elastomer, with a 2:1 shrinkage rate. Resistant to high temperature, flame retardant, oil, acid and alkali, flexible, with an operating temperature of -55℃~200℃. Widely used for protection of electronic components in high-temperature and oily environments, insulation and protection of resistors, capacitors and thermocouples, mechanical protection of various metallic wires, and insulation, protection and reinforcement of wire ends, connections and terminals.

Product Features

- High Temperature, Flame-retardant, Oil, Acid & Alkali Resistant, Flexible
- Operating Temperature: -55℃~200℃
- Shrinkage Temperature: 175℃
- Standard Color: Black

Standard / Certification

ASTM D638 · ASTM D2671 · ASTM D876

Performance Indicators

item	Test Method	Index	Typical Value
Tensile strength (Mpa)	ASTM D638	≥8	12.4
Breakage elongation rate (%)	ASTM D638	≥250%	300%
Range of operating temperature	IEC216		-55℃~+220℃
Minimum shrinkage temperature	IEC216		100℃
Minimum complete shrinkage temperature	IEC216		175℃
Longitudinal length change rate	ASTM D2671	≤10%	≤5%
(250℃±2℃, 168h)Elongation at break after aging		≥20%	250%
(300℃±3℃, 4h)Thermal shock		No crack, no dripping	No crack, no dripping
Dielectric strength (kv/mm)	ASTM D2671	≥7.9	≥11
Volume resistivity (Ω·cm)	ASTM D876	$\geq 10^{14}$	$\geq 10^{14}$

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Comparison

item	Fluorine Rubber Tubing	Silicon Rubber Tubing
Range of operating temperature	-55℃~+200℃	-60℃~+200℃
Mechanical strength	High	Low
Resistant to acid and alkali	Good	Poor
Resistant to oil	Very good	Average
Combustion property	Flame-retardant	Flame-retardant
Wear resistance	Average	Poor
Airtightness	Good	Poor
Electric insulation	Average	Good
Waterproof	Good	Average

Notes

- Standard color: Black; custom colors and other sizes available upon request.
- It can be cut to a fixed length as required.
- Comparison: Fluorine Rubber vs Silicon Rubber

Product Advantages

- **High Temperature & Flame-retardant**
  Radiation crosslinking modified fluorine elastomer — resistant to high temperature, flame retardant, oil, acid and alkali, flexible.
- **Operating Temperature -55℃~200℃**
  Wide temperature range for high-temperature environments.
- **Reliable Insulation**
  Insulation for electronic components and thermocouples with high dielectric strength.
- **Custom Colors Available**
  Standard color: black; custom colors available upon request.

Application Scenarios

- **High-temp & Oily Environments**
  Protection of electronic components in high-temperature and oily environments.
- **Electronic Components**
  Insulation and protection of resistors, capacitors and thermocouples.
- **Metallic Wires**
  Mechanical protection of various metallic wires.
- **Terminals & Connections**
  Insulation, protection and reinforcement of wire ends, connections and terminals.