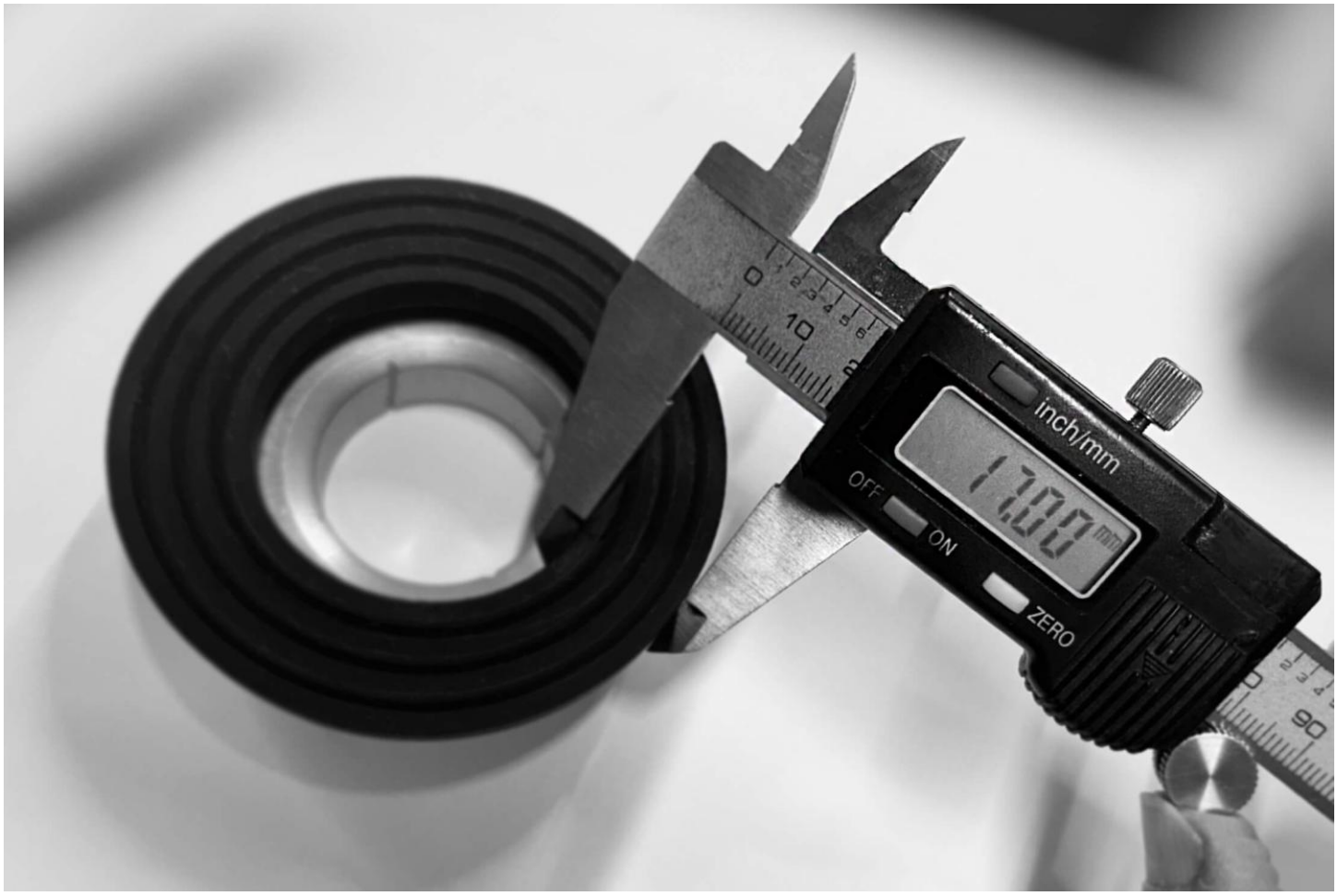
Harltex.

# FKM Materials




## Tough. Trusted. Tested

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VAT No. 420716875

# The Material of Choice for Aggressive Environments

Engineered by Harltex.co.uk

When performance matters, material selection is critical. At Harltex, we guide our customers from concept through to realisation—helping you choose the right material for the job.

## Why FKM?

FKM (fluoroelastomer) is trusted in extreme environments where failure is not an option. Its superior performance in high-temperature, chemically aggressive, and gas-rich conditions makes it indispensable in critical applications.

Whether you're in the automotive, marine, rail, utilities, or construction industries, FKM delivers lasting protection and peace of mind.

## Proven Performance

- ✔ Over 40 years of FKM products in active service
- ✔ Cost-effective solutions tailored to performance needs
- ✔ Trusted by industry leaders worldwide

## Core Benefits of FKM

- High Temperature Resistance
- Chemical Resistance
- Low Gas Permeability
- Superior Mechanical Properties
- Weather & Ozone Resistance
- FKM excels where other elastomers fail — making it the smart choice for harsh, high-risk environments.

## Moulding & Extrusion Capabilities

From micro-scale to massive: Harltex delivers.

- Precision Extrusions: From <5mm profiles to >400mm widths
- Low-Volume? No Problem: Efficient processes without wasteful continuous curing
- Moulding + Extrusion: One of the few manufacturers able to do both—at any scale

We adapt our processes to your needs, offering flexibility, efficiency, and uncompromising quality.

## Your Partner from Start to Finish

At Harltex, we're more than a supplier—we're a technical partner. From first enquiry to final delivery, we ensure every product is built for long-term performance and application-specific precision.

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# Applications - Aerospace, Automotive, and Industrial

**FKM**, sometimes referred to by the brand name **Viton®**, is renowned for its exceptional **chemical resistance, heat tolerance**, and **durability**. It is the material of choice in applications exposed to **aggressive chemicals** and **extreme temperatures**, making it ideal for critical sealing and gasketing components in harsh environments.

## Automotive and Off-Highway

Used in fuel system components, seals, and gaskets due to its resistance to fuels and elevated temperatures.

## Gas and Fluid Handling

Used in seals, gaskets, and diaphragms in chemical plants where exposure to corrosive chemicals is common.

## Aerospace

Resistance to elevated temperatures and harsh chemicals - suitable for aircraft fuel systems and other critical components.

## Semiconductor Manufacturing

Used in seals and components in vacuum systems, due to its low outgassing and resistance to various chemicals.

## Utilities and Renewable Energy

EPDM seals for water systems and FKM gaskets for high-temperature energy systems

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# Technical Data Sheet FKM – VIT700

**Description:** FKM Co-polymer Elastomer (Temp Range: -20°C to 200°C) (Intermittent up to 250°C)

| PROPERTY | Unit | Specification | Results | Test Method |
|---|---|---|---|---|
| Hardness | Shore A | 75 ± 5 | 76 | ASTM D 2240 |
| Tensile - Strength | Mpa | >10 | 18.2 | ASTM D 412 |
| Elongation | % | >175 | 195 | ASTM D 412 |
| Tear Resistance | N/mm | | 29 | ASTM D624/B |
| Specific Gravity | g/cm³ | 1.85 ± 0.02 | 1.82 | ASTM D 297 |
| Compression Set: 24 Hours @ 200ºC | | <50 % | 17% | ASTM D 395/B Prov. 2 |
| Low Temperature Properties | TR-TEST | TR 10 | -17ºC | ASTM D 1329 |
| Ozone Resistance | | NO CRACKS | PASS | ASTM D 1171 |

| Environment | Test Method | Hours | Temperature | Hardness Change | | Tensile Change | | Elongation Change | | Volume Change | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | ºC | points | | % | | % | | % | |
| (Medium) | | | | Spec | Result | Spec | Result | Spec | Result | Spec | Result |
| AIR | ASTM-D573 | 168 | 200 | | +2 | | -10 | | -14 | | |
| AIR | ASTM-D573 | 70 | 250 | +10 | +1 | -25 | -12 | -25 | -23 | | |
| IRM 903 | ASTM D-471 | 70 | 150 | | 0.0 | | -5 | | -12 | +5 | +0.5 |
| FUEL C | ASTM D-471 | 70 | 23 | ± 5 | -0.0 | -25 | -9 | -20 | -14 | +10 | +1.7 |
| FUEL A | ASTM D-471 | 70 | 23 | | -1.0 | | -4 | | -10 | | +1.4 |
| FUEL B | ASTM D-471 | 70 | 23 | | -1.0 | | -10 | | -15 | | +0.8 |
| SERV.FLUID 101 | ASTM D-471 | 70 | 200 | +5/-15 | -8 | -40 | -20 | -20 | -18 | 0/+15 | +6 |

Test Standard - ASTM D 2000-08: M2 HK710 A1-10 B38 C12 EF31 EO78, Z1, Z2



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