Haiflon® FKM Copolymer Gum HF2602

CAS No.: 64706-30-5 · vinylidene fluoride / hexafluoropropylene copolymer gum

Haiflon® FKM-HF2600 copolymer gum is a copolymer of hexafluoropropylene (HFP) and vinylidene fluoride (VDF), supplied as a white or light-yellow translucent elastomer with a fluorine content above 66%. After vulcanization it offers excellent mechanical properties, outstanding oil resistance (fuel oil, synthetic oil, lubricating oil) and high thermal stability. The HF2601 – HF2604 series covers Mooney viscosities from 10 to 200 for calendering, extrusion, injection and compression molding.

Quality Specification

Item	Specification
Appearance	White or light-yellow translucent rubber piece
Fluorine content	> 66 %
Specific gravity, g/cm^3	1.80 – 1.84
Mooney viscosity, ML 1+10 (121 ℃)	40 – 60
Tensile strength, MPa ≥	11.5
Elongation at break, % >	160
Tensile strength after aging 24 h at 270 ℃, MPa ≥	9.5
Elongation at break after aging 24 h at 270 ℃, %	130
Compression set (270 ℃ × 24 h, 30 % compression), % ≤	25
Oil resistance — 1# aviation fuel, 200 ℃ × 24 h, weight gain, % ≤	6

Properties & Application

Medium-high viscosity, good milling and calendering performance.
Application: Calendered sheet; skeleton oil seals; extruded hose.

Typical Applications

- **Additive for high-Mooney rubber compounds**
- **O-rings, V-rings, gaskets and sealing cups with metal inserts, diaphragms**
- **Calendered sheet, skeleton oil seals, extruded hose**
- **General molded parts and oil seals by injection and compression molding**
- **Widely used in high-temperature, aviation, automobile, petroleum and chemical industries, oils and lubricants**

Processing Guidelines

Haiflon FKM gum polymer is first compounded with fillers, process aids and the chosen cure system (bisphenol or peroxide) on internal mixers or two-roll mills. During compounding, full cooling should be maintained and the compound should be cooled as quickly as possible after mixing. Typical press cure is 10 min at 170 – 180 ℃ followed by a post cure of 4 – 24 h at 200 – 230 ℃, depending on the compound formulation and part thickness.

Safety Precautions

- **FKM gum has good thermal stability below 260 ℃; prolonged exposure at 260 – 300 ℃ causes slight decomposition, and above 320 ℃**
- **releasing toxic HF and fluorocarbon compounds; burning releases toxic HF as well.**
- **Do not compound FKM with metal powders (e.g. Al, Mg) or amine compounds above 10% — temperature rise and reaction may dama**
- **operators.**
- **Store and handle in a well ventilated place; avoid eye contact; wash contacted skin and clothing after handling.**
- **Further safety information can be found in the product's Safety Data Sheet (SDS).**

Storage & Handling

- **Store in clean, dry, cool conditions, away from direct sunlight and water; keep the package sealed.**
- **Shelf life is one year from the production date; product exceeding the shelf life may still be used after re-testing and approval.**
- **Transport as a non-hazardous chemical; avoid contamination.**

Packing

Packed in PE bags, then in cardboard cartons; net weight 20 kg per carton. · Custom packing is available on request.

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