

HAIFLON® FEP SQ-082 Extrusion Resin (Virgin Pellets)

CAS No.: 25067-11-2

Haiflon® FEP SQ-082 is a virgin fluorinated ethylene propylene (FEP) resin supplied as translucent clean pellets with a melt flow rate of 0.8 – 2.0 g/10 min. It offers the highest resistance to stress cracking of the SQ virgin series and excellent electrical insulation, and is designed for heat-shrink tubing, pump and valve pipe linings and wire insulation jackets and cores.

Product Features

- ✧ Low melt flow rate (0.8 – 2.0 g/10 min) for thick, uniform extrusions
- ✧ Excellent resistance to stress cracking in the SQ virgin series
- ✧ Excellent electrical insulation: volume resistivity $1 \times 10^{16} \Omega\cdot\text{cm}$, low dielectric constant and loss
- ✧ Melting point $265 \pm 10^\circ\text{C}$; continuous service up to 200°C
- ✧ Excellent chemical resistance and weatherability

Typical Physical Properties

Item	Specification — SQ-082
Appearance	Translucent clean pellets, no visible impurities
Melt flow rate (MFR), g/10 min	0.8 – 2.0
Tensile strength, MPa	≥ 27
Elongation at break, %	≥ 320
Melting point, $^\circ\text{C}$	265 ± 10
Specific gravity	2.12 – 2.17
Volatile content, %	≤ 0.10
Resistance to stress cracking	Excellent
Volume resistivity, $\Omega\cdot\text{cm}$	$\geq 1 \times 10^{16}$
Dielectric strength, kV/mm	20 – 24
Dielectric constant	2.10
Dielectric dissipation factor	$\leq 3.0 \times 10^{-4}$

Applications

- ✧ Heat-shrink tubing and sleeves
- ✧ Pump and valve pipe linings
- ✧ Wire insulation jackets and cores
- ✧ Thin-wall tubing and profiles by extrusion

Comparable Grades

Daikin Neoflon NP-40 (0.75 – 1.8)

Safety Precautions for Using FEP Resins

- ✧ FEP resins are not hazardous for transport and are not classified as dangerous goods. Please refer to the Safety Data Sheet (SDS) before use.
- ✧ When heated above 400°C , small amounts of decomposition products (hydrogen fluoride, carbonyl fluoride) may be liberated. Ventilate the processing area and avoid inhaling fumes.
- ✧ Avoid breathing dust and wear suitable personal protective equipment (dust mask, gloves) during handling.
- ✧ Smoking in the work area is prohibited, since tobacco may be contaminated by polymer particles and generate harmful decomposition products when lit.

Storage & Handling

- ✧ Store in a clean, cool and dry warehouse, away from heat sources and direct sunlight.
- ✧ Keep packages sealed to prevent contamination and moisture uptake; avoid severe vibration and shock during transportation and storage.
- ✧ If necessary, dry the pellets at $100 - 120^\circ\text{C}$ for 2 – 4 h before processing.

Packing

- ✧ Packed in a sealed PE inner bag in a waterproof paper drum; net weight $25 \pm 0.1 \text{ kg}$ per drum.
- ✧ Other packings are available on request.