

HAIFLON® PVDF FP-811 Injection & Extrusion Resin

CAS No.: 24937-79-9

Haiflon® PVDF FP-811 is a vinylidene fluoride (VDF) homopolymer produced by emulsion polymerization, supplied as white translucent pellets (also available in powder form) with a melt flow rate of 10 – 25 g/10 min (230 °C, 5 kg). It combines excellent chemical resistance, high mechanical strength and easy processability, and is designed for injection molding and extrusion of pumps, valves, pipe fittings, tower packing (pall rings) and semiconductor-industry components.

Product Features

- ✧ Melt flow rate 10 – 25 g/10 min (230 °C, 5 kg) for easy injection molding and extrusion
- ✧ Excellent chemical resistance to acids, alkalis, oxidants and halogens at room temperature
- ✧ High mechanical strength and toughness; abrasion and weather resistant
- ✧ Good electrical insulation and intrinsic flame retardancy
- ✧ Supplied as pellets or powder; processing temperature typically 180 – 300 °C

Typical Physical Properties

Item	Specification — FP-811
Appearance	White translucent pellets
Melt flow rate (MFR), g/10 min	10 – 25 (5 kg)
Tensile strength, MPa	≥ 30
Elongation at break, %	≥ 10
Tensile yield strength, MPa	≥ 40
Yield elongation, %	≥ 5
Standard specific gravity	1.77 – 1.79
Melting point, °C	156 – 175
Hardness, Shore D	70 – 80
Water absorption, %	≤ 0.05

Applications

- ✧ Pumps, valves, pipe fittings and tower packing (pall rings)
- ✧ Semiconductor industry components (pipes, valves, fittings for chemical delivery)
- ✧ Injection-molded and extruded industrial parts
- ✧ Linings and corrosion-proof components for chemical equipment

Comparable Grades

Arkema Kynar 6000 HD (9.5 – 16.0, 5 kg), Kynar 720 (5.0 – 26.5)

Safety Precautions for Using PVDF Resins

- ✧ PVDF resins are not hazardous for transport and are not classified as dangerous goods. Please refer to the Safety Data Sheet (SDS) before use.
- ✧ PVDF has good flame-retardant and smoke-suppression properties, but when exposed to fire it releases toxic hydrogen fluoride gas and fluorocarbon compounds.
- ✧ Slight decomposition with hydrogen fluoride release begins above 300 °C. Do not process or use the product above 370 °C.
- ✧ Avoid breathing dust and processing fumes; wear suitable personal protective equipment (dust mask, gloves, goggles) during handling.
- ✧ Clean face and hands thoroughly after handling, and dispose of processing waste through specialized personnel according to local regulations.

Storage & Handling

- ✧ Store in a clean, cool, shady and dry warehouse, away from heat sources and direct sunlight, and avoid mixing with dust and moisture.
- ✧ Keep packages sealed to prevent contamination and moisture uptake.
- ✧ Avoid severe vibration, shock and heating during transportation and storage — powders tend to agglomerate.

Packing

- ✧ Packed in polyethylene bags, sealed in an outer packaging bag.
- ✧ Net weight 25 ± 0.1 kg per bag.
- ✧ Other packings are available on request.