

Tecnoflon® PFR 91

fluoroelastomer

Tecnoflon® PFR 91 is a very high fluorine content, chemically resistant peroxide curable fluoroelastomer. It can withstand very aggressive conditions, such as almost all chemical species, including organic and inorganic acids, diluted alkalis, ketones, esters, alcohols, fuels and hot water.

Tecnoflon® PFR 91 bridges the gap between traditional fluorocarbons and perfluoroelastomers. It offers much improved resistance to polar solvents (aldehydes, ketones, esters, ethers, lactones, etc.) and bases (like aqueous ammonia) than high fluorine content peroxide curable FKMs (like Tecnoflon® P 959). On the other hand, it shows enhanced cold flexibility when compared to FFKMs, as indicated by the TR10 value.

Tecnoflon® PFR 91 represents the most cost effective sealing solution for solvent mixtures, as the ones to be found in the chemical and process, paint and lacquers industries as well as in biopharma laboratories and active pharmaceutical ingredient (API) manufacturing plants, for temperatures ranging from -20°C to 230°C.

Tecnoflon® PFR 91 can be combined with the cure system and other typical fluoroelastomer compounding ingredients; its mixing can be accomplished with two-roll mills or internal mixers.

Finished goods may be produced by a variety of rubber processing methods.

The primary use for PFR 91 is the manufacturing of any kind of elastomeric sealing element such as O-rings, gaskets, valve bodies, butterfly valves, pump housings and stators, metal bonded parts, diaphragms, profiles, etc.

These sealing elements can be used in mechanical seals, pumps, compressors, valves, reactors, mixers, sprayers, dispensers, quick connect couplings, controls, instrumentation, etc. in chemical and petrochemical industry, hydrocarbon processing, petroleum exploration and extraction, food processing, pharmaceutical and bio-analytical industry, aerospace and semiconductor manufacturing industries.

Tecnoflon® PFR 91 is registered in the FDA Inventory of Effective Premarket Notifications for Food Contact Substances. It can be compounded so that the finished gaskets or seals can be used in food processing equipments (see "food processing compounds" section below).

Tecnoflon® PFR 91 is marketed in the form of raw polymer (1 kg box) in order to give the transformer the freedom and the opportunity to develop and fine-tune compounds and items best suited to the final application.

General

Material Status	• Commercial: Active	
Availability	• Europe	• North America
Features	<ul style="list-style-type: none"> • Acid Resistant • Alcohol Resistant • Alkali Resistant • Base Resistant • Chemical Resistant • Food Contact Acceptable 	<ul style="list-style-type: none"> • Fuel Resistant • Low Compression Set • Moisture Resistant • Solvent Resistant • Steam Resistant
Uses	<ul style="list-style-type: none"> • Blending • Compounding • Diaphragms • Gaskets 	<ul style="list-style-type: none"> • Profiles • Pump Parts • Seals • Valves/Valve Parts
Agency Ratings	• FDA Food Contact	

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General

Appearance	• Translucent
Forms	• Slab
Processing Method	• Compounding

Physical

Typical Value Unit

Mooney Viscosity ¹ (ML 1+10, 121°C)	35 MU
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Notes

Typical properties: these are not to be construed as specifications.

¹ Raw polymer

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