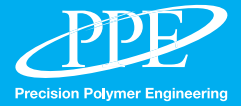




V75TF



Fluorosurfactant-free low temperature FKM

V75TF is a fluorosurfactant-free alternative to V75T, a PPE grade recommended for use in static or dynamic applications where low temperature performance is required.

V75TF uses a fluorosurfactant-free version of the polymer used in V75T. The two materials are otherwise compounded and processed identically.

Testing has been carried out that shows, as detailed below, strong alignment between the original and NFS (non-fluorosurfactant) versions from a thermal and mechanical perspective.

V75TF also uses the same base polymer as V91KF, where more extensive testing has been performed. For V91KF the results demonstrate high performance and a strong correlation to the original grade (V91K), offering confidence in the consistent quality across the line. Compression set results further validate high-temperature performance, ensuring V75TF meets demanding application requirements.

Material Properties	Method	V75T	V75TF
Hardness (Shore A)	ASTM D412	74	75
Hardness (IRHD)	ASTM D1415	82	83
Density (g/cm ³)	ASTM D792	1.81	1.81
Tensile Strength (MPa)	ASTM D412	19.8	19.5
Elongation at Break (%)		215%	200%
Modulus @ 50% (MPa)		2.9	3.3
Modulus @ 100% (MPa)		6.7	7.8
Compression Set (72h @ 200°C / 392°F)	ASTM D395 Method B	17%	17%
Compression Set (72h @ 200°C / 392°F)	ISO 815 Method B	27%	28%
Compression Set (72h @ 200°C / 392°F)	ISO 815 Method C	16%	17%

Table comparing typical properties of original material against new NFS version

Thermal Performance: (Low Temperature)

Low temperature flexibility has been compared using the midpoint Glass Transition Temperature (Tg) obtained through Differential Scanning Calorimetry (DSC) ASTM D3148.

The results show a high degree of correlation between the original and NFS materials.

Material Grade	Glass Transition Temperature (°C)
V75T	-30.6°C / -23°F
V75TF	-30°C / -22°F

DSC: Comparable Glass Transition Temperature



V75TF is part of PPE's range of fluorosurfactant-free fluoroelastomer materials. It has been developed to be more environmentally sustainable.