

PRODUCT

25% CAR

(75% Virgin ptfе + 25% carbon coke)

Property	Method	Units	Specification
Specific gravity	ASTM D792	g/cm ³	2,050 – 2,120
Tensile strength	ASTM D4894	MPa	≥ 13
Elongation	ASTM D4894	%	≥ 60
Hardness	ASTM D2240	Shore D	≥ 62
Compression strength at 1% deformation		MPa	≥ 10
Deformation under load (140 Kg/cm ² for 24 hrs. At 23°C)	ASTM D621	%	5 - 7
Permanent deformation (after 24 hrs. Relaxation at 23°C)	ASTM D621	%	2 - 4
Coefficient of linear thermal expansion (T= 25 - 100 °C)		10 ⁻⁵ /°C	7 – 12,5
Coefficient of static friction			0,14 – 0,16
Coefficient of dynamic friction			0,12 – 0,14
Volume resistivity	ASTM D257	Ohm cm	10 ⁴
Ageing and weatherability			Stable over 20 years of exposure
Radiations resistance (gamma rays)	low:		Electrical properties unchanged, mechanical properties decreased
Service Temperature		C°	-200/ +260

Properties:

- Excellent compression and wear resistance; good thermal conductivity, low permeability; improved coefficient of thermal expansion when combined with ceramic.

Main applications:

- Widely used in seal applications where high wear resistance is required under high compression (eg. piston rings for dry compressors, bearings, grooved mechanical support).

Statement on suitability for contact with foodstuff:

- We certify that all our 25% Carbon filled molded and extruded semifinished products, made of P 25 CAR, can come in contact with foodstuff, as per the following requirement:

USA regulations (FDA, Food and Drug Administration, Department of Health and Human Services; Code of Federal Regulations 21 CFR Ch. 1 § 177.1550 (a) (1) and (b)-Perfluorocarbon Resins.

The user must verify that the finished item, made of the semifinished product, would be technically suitable for the requested application. The user must also verify that the finished item may not cause any modification to the organoleptic properties of the foodstuff and that the item's technological fitness it is assigned to, may be guaranteed.

For each foreign country market, where the articles are introduced into, it is responsibility of the user to determine whether both material than articles would comply with the applicable laws and regulations.

Date: 10/2009