

Elast-O-Pure® GF75 Black

Elast-O-Pure® GF75 Black is a fluorocarbon elastomer based on Viton® GF-600S polymer from DuPont Performance Elastomers. James Walker developed Elast-O-Pure® GF75 Black to meet the stringent requirements of the pharmaceutical and bioprocessing sectors. It provides excellent resistance to steam and strong mineral acids and exhibits very low Total Organic Carbon (TOC) levels.



Features:

- Independently tested in accordance with, and conforms to, United States Pharmacopoeia (USP) 30 Class VI.
- Compounded to give extremely low extractables – minimising the risk of potential contamination.
- Very low compression set, so ideally suited to the manufacture of 'O' rings, hygienic clamp gaskets and other items where the long-term retention of sealing forces is required.
- Excellent resistance to steam — ideal for Sterilised-in-Place (SIP) processes.
- Outstanding chemical resistance, including CIP media and strong mineral acids.
- Exceptionally clean release from stainless steel after prolonged contact at elevated temperature.
- Very high working temperature capability: 230°C (446°F) maximum.
- Available as 'O' rings, hygienic clamp gaskets, custom mouldings, sheet, and precision cut gaskets.

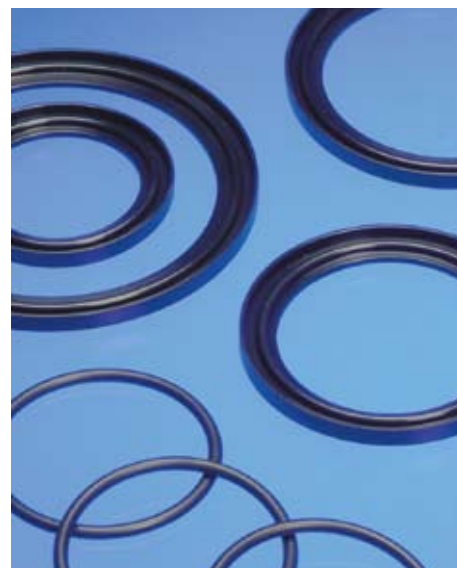


Purity and Biocompatibility

USP requirements: Elast-O-Pure® GF75 Black has been independently tested in accordance with, and meets the requirements of *United States Pharmacopoeia (USP) 30 Class VI*.

FDA requirements: Elast-O-Pure® GF75 Black has been designed in accordance with *CFR Title 21 Section 177.2600*. FDA food contact compliance for Viton® GF-600S with limitations/specifications for repeated use applications is outlined in *Food Contact Notification (FCN) 510*.

TOC testing: When independently tested, following extraction procedures in accordance with USP381, Elast-O-Pure® GF75 Black gave an average TOC value of 8.4. Whilst no upper limit is stipulated in the USP document this remarkably low TOC value minimises any potential for contamination.



Technical data for Elast-O-Pure® GF75 Black

Typical physical properties

Property	Unit	Value
Temperature (max)	°C / °F	230 / 446
Temperature (min)	°C / °F	0 / 32
Hardness	IRHD	74
Tensile strength	MPa / psi	30 / 4350
Elongation at break	%	220
Compression set (24 hours at 200°C / 392°F)	%	13
Total Organic Carbon (TOC)*	ppm	8.4

(*Independent test report available on request.)

Industry specific immersion testing

Water for injection (WFI)

	Units	4 weeks at 80°C / 176°F
Volume change	%	+3.2
Change in tensile strength	%	+4
Change in elongation at break	%	-1.7
Change in hardness	IRHD	-5

(These results show that Elast-O-Pure® GF75 Black displays exceptional resistance to WFI, even at elevated temperatures.)

A detailed Statement of Compliance for Elast-O-Pure® GF75 Black is available to customers on request.

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Health warning: If PTFE or fluoroelastomer (eg, FKM, FFKM, FEPDM) products are heated to elevated temperatures, fumes will be produced which may give unpleasant effects, if inhaled. Whilst some fumes are emitted below 250°C from fluoroelastomers or below 300°C from PTFE, the effect at these temperatures is negligible. Care should be taken to avoid contaminating tobacco with particles of PTFE or fluoroelastomer, or with PTFE dispersion, which may remain on hands or clothing. Material Safety Data Sheets (MSDS) are available on request.

Information in this publication and otherwise supplied to users is based on our general experience and is given in good faith, but because of factors which are outside our knowledge and control and affect the use of products, no warranty is given or is to be implied with respect to such information. Specifications are subject to change without notice. Statements of operating limits quoted in this publication are not an indication that these values can be applied simultaneously.

CIP 100®*

(4% by volume in de-ionised water)

	Units	4 weeks at 60°C / 140°F
Volume change	%	+0.9
Change in tensile strength	%	+3.2
Change in elongation at break	%	-6.0
Change in hardness	IRHD	-2

(*Manufactured by Steris — based on potassium hydroxide. CIP 100® is a registered trademark of Steris Corporation.)

CIP 200®*

(4% by volume in de-ionised water)

	Units	4 weeks at 20°C / 68°F
Volume change	%	+0.4
Change in tensile strength	%	-8.3
Change in elongation at break	%	-7
Change in hardness	IRHD	-2

(*Manufactured by Steris — based on phosphoric acid. CIP 200® is a registered trademark of Steris Corporation.)