

**James Walker®**

## Fluolion® Xtreme

Special high-performance material for hydraulic seals in metallurgical plant

**This well tried and tested low-friction material has been used successfully over many years on composite seals for piston and rod applications.**

**We recommend it for your most arduous applications in metallurgical plant, including:**

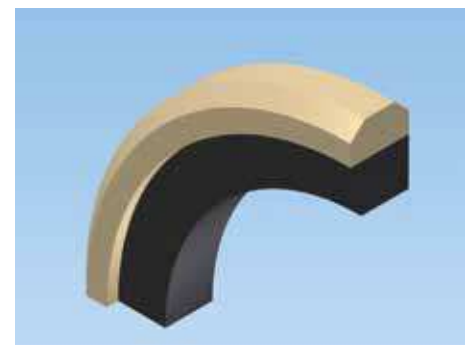
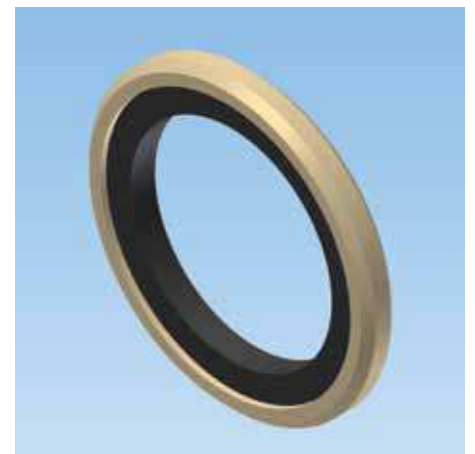
- Automatic gauge control (AGC) cylinders.
- Work roll bending plant.
- Other heavy/critical cylinders.

**Fluolion® Xtreme improves composite seal performance to give you high *Value-in-Service* and savings on *Cost of Ownership*, due to:**

- Hard-wearing PTFE composite construction.
- Low coefficient of friction.
- Suitability for piston and rod/gland seals.

**...And with improved plant performance, as part of James Walker's complete sealing solution, derived from:**

- Responsive at low pressure — for full range performance.
- Double and single acting piston designs, with strong or limited guidance systems, and
- A range of seal profiles to suit your most exacting application details — all applications covered.



High Performance Sealing Technology

# Fluolion® Xtreme — for high performance hydraulic seals

## Technical data

### Comparison of mechanical properties

	<b>Glass-filled PTFE: G15*</b> (15% glass by weight)	<b>Bronze-filled PTFE: B60</b> (60% bronze by weight)	<b>Fluolion® Xtreme</b>
<b>Abrasion resistance**</b>	Good*	Very good	Excellent
<b>Deformation under load: 14.2MPa for 24h @ 23°C</b>	12.1%*	11.1%	6.5%
<b>Density</b>	2.21g/cm³ *	3.8g/cm³	1.89g/cm³
<b>Elongation (maximum)</b>	300% *	160%	180%
<b>Hardness</b>	62 Shore D*	69 Shore D	63 Shore D
<b>Coefficient of friction (PTFE to steel)</b>	0.1*	0.08	0.05

\* Note: the properties of glass-filled PTFE vary depending on the type of glass used.

\*\* Based on wear rate at room temperature.

**Fluolion® Xtreme** will normally be the dynamic part of a composite seal arrangement. Therefore seal performance also relates to the properties of the elastomeric energiser. Typical performance figures of our composite seals are:

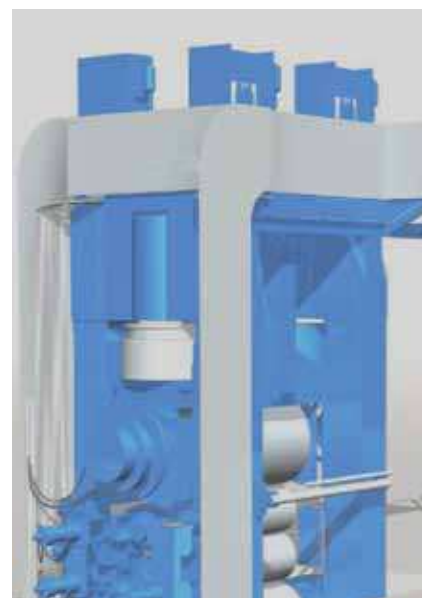
**Temperature range:** -25°C to +120°C (with NBR energiser)  
-15°C to +200°C (with FKM energiser)

**Speed (maximum):** 5.0m/s

**Pressure (maximum):** 40MPa (400bar)

(For applications where higher pressure, temperature or speed performance is required, please consult our Technical Support Team for recommendations.)

**For the swiftest service, and to find out about our other products and services, please contact your local James Walker office or distributor as listed under 'Contact us' at: [www.jameswalker.biz](http://www.jameswalker.biz)**



**Health warning:** If PTFE or fluoroelastomer (eg, FKM, FFKM, FEPM) 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. Unless governed by type approval or contract, 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. To ensure you are working with the very latest product specifications, please consult the relevant section of the James Walker website: [www.jameswalker.biz](http://www.jameswalker.biz).

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