



# High Purity Monoclinic Zirconia for Surgical Cements

**Luxfer MEL Technologies monoclinic zirconias** are high performance, high purity zirconium oxides suitable for use in surgical cements where a high level of control of chemical and physical properties is needed.

**Luxfer MEL Technologies monoclinic zirconias** are manufactured in the UK by a precisely controlled chemical precipitation process that ensures consistency of both purity and performance.

## Features

A high purity grade of zirconium oxide specifically designed as a contrast agent for surgical cement applications where high levels of radio-opacity are required.

## Applications

When compared to barium sulphate, zirconia generally:

- Shows significantly higher radio-opacity
- Is less soluble (by around 100X)
- Has less effect on the mechanical properties of the cement

- Shows less bone resorption
- Has a reduced effect on the PMMA curing temperature

## Chemical composition (typical values)

Grade	TiO <sub>2</sub> (wt%)	SiO <sub>2</sub> (wt%)	Fe <sub>2</sub> O <sub>3</sub> (wt%)
GL10	0.01	0.01	0.001

## Physical properties (typical values)

Grade	Average particle size (µm)	Average surface area (m <sup>2</sup> .g <sup>-1</sup> )
GL10	20	1

## Packaging

Standard packaging is 50 kg packed into poly-lined fibre-board drums.

## Safety data sheet

Regional SDS information is available on request.

Discover more at

[www.luxfermeltechnologies.com](http://www.luxfermeltechnologies.com)

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† The information contained within is meant as a guideline only

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