



P L A S M A B I O T A L L I M I T E D

TECHNICAL DATA SHEET

CAPTAL[®] ACP 1.67 'AMORPHOUS' CALCIUM ORTHOPHOSPHATE

Captal[®] ACP 1.67 is a synthetic high-purity, nano-crystalline bio-resorbable bone substitute material. Crystallites of material are sufficiently small not to diffract x-rays, hence it is termed 'amorphous'. When sintered under the correct conditions, Captal[®] ACP 1.67 will form fully crystalline hydroxylapatite (HA).

Chemical Specification (Typical values in parentheses)

Phase Purity	Ca ₃ (PO ₄) ₂	> 95 %	(99)
Ca:P Ratio		1.66-1.72	(1.67)
Heavy Metals	Arsenic (As)	< 3 ppm	(< 1)
	Cadmium (Cd)	< 5 ppm	(< 1)
	Mercury (Hg)	< 5 ppm	(< 1)
	Lead (Pb)	< 30 ppm	(< 3)
Other Impurities (Typical Values)	Silicon (SiO ₂)	0.02 %	
	Magnesium (MgO)	< 3000 ppm	
	Iron (Fe ₂ O ₃)	< 500 ppm	
	Manganese (Mn ₃ O ₄)	< 100 ppm	
	Aluminium (Al ₂ O ₃)	< 500 ppm	
	Strontium (SrO)	< 500 ppm	
	Sodium (Na ₂ O)	< 300 ppm	

Physical Properties (Typical Values)

Morphology	Spherical (Spray Dried)
Colour	White
Particle Size Distribution	d(10) = > 1 µm
	d(50) = 15 – 25 µm
	d(90) = < 40 µm
Surface Area (BET)	> 30 m ² /g
Moisture Content (Loss on Drying at 110 °C)	< 2.5 wt%

Custom Particle Size distributions available on request – please contact us.

Storage and Handling

Captal[®] ACP 1.67 is stable when stored under the correct conditions. Ensure the container is correctly sealed and store in a cool, dry environment. Captal[®] ACP 1.67 is sold as non-sterile material and is not packaged in a clean room environment. Please refer to the safety data sheet for more information on the storage & handling of Captal[®] ACP 1.67 material.

Further Information

For more information on this or any other Plasma Biototal products, please either go to the website: www.plasma-biototal.com or contact us via email: info@plasma-group.co.uk

