

CT scaling phantoms, objectives & filters

ZEISS X-ray Microscopy

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Seeing beyond

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CT scaling phantoms

CT phantom - water kit	Objective	Common application	Material type	Dimensions
High resolution water assembly	20X, 10X, 4X, Macro	Tissue research	PMMA	3mm, 0.65mm
Small water assembly	10X, 4X, Macro, FPX, Context	Tissue research	PMMA	3mm, 1.5mm
Large water assembly	4X, Macro, FPX, Context	Tissue research	PMMA	5mm

CT phantom - bone kit	Objective	Common application	Material type	Dimensions
Small bone assembly	10X, 4X, Macro, FPX, Context	Bone and tissue research	Calcium inserts	3mm, 1.5mm
Large bone assembly	4X, Macro, FPX, Context	Bone and tissue research	Calcium inserts	5mm

CT phantom - water kit	Objective	Common application	Material type	Dimensions
Bone and water D4.5 assembly	4X, Macro, FPX, Context	Bone and tissue research	Base material epoxy resin	OD = 4.5mm Rod D = 0.8mm Height 5mm
Bone and water D10 assembly	Macro, FPX, Context	Bone and tissue research	Base material epoxy resin	OD = 10mm Rod D = 2mm Height 40.4mm
Bone and water D20 assembly	Macro, FPX, Context	Bone and tissue research	Base material epoxy resin	OD = 20mm Rod D = 2mm Height 40.4mm
Bone and water D25 assembly	Macro, FPX, Context	Bone and tissue research	Base material epoxy resin	OD = 25mm Rod D = 5mm Height 40.4mm
Bone and water D32 assembly	Macro, FPX, Context	Bone and tissue research	Base material epoxy resin	OD = 32mm Rod D = 5mm Height 40.4mm



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Objectives

	10x	40x
Availability	Xradia 410 Versa; Optional with <i>in situ</i> kit	Optional on Xradia 410, 510, 520, 610, 620 Versa
Spatial resolution	1 μm	0.7 μm ; 0.5 μm with Versa-600 series
Field of view (fov)	max fov: 2700 μm	max fov: 645 μm
Common applications	Provides higher magnification. Can be used with <i>in situ</i> kit on Xradia 410 Versa to get smaller voxel sizes without high geo-mag.	Achieves highest resolution with small sample sizes.

Filters

	LE1 through LE6	HE1 through HE6
Compatible with	Context microCT; Xradia 410, 510, 520, 610, 620 Versa. Note: Xradia 520 & 620 Versa have Filter Wheel.	Context microCT ; Xradia 410, 510, 520, 610, 620 Versa. Note: Xradia 520 & 620 Versa have Filter Wheel.
Application	Main reason for using: Reduction of beam hardening artifacts. Mostly used with: Low Z materials such as biological or polymeric samples.	Main reason for using: Reduction of beam hardening artifacts. Mostly used with: High Z materials such as metallic structures, metal samples, semiconductor samples.

