

Prime

Broadening the
spectrum of quality
assurance

NEW
GENERATION



The new generation of Prime phantom brings enhanced anatomical and imaging fidelity to end-to-end radiotherapy quality assurance

- Enhanced anatomical and imaging fidelity
- Distinct bone and skin CT characteristics
- Advanced multi-material manufacturing technology

Prime phantom can be combined with RTsafe's Remote Dosimetry Services

Intended for:

- + End-to-End QA in SRS Applications
- + Commissioning and Benchmarking
- + Periodic Quality Assurance
- + Confidence Building & Training
- + Remote or Internal Audit Tests
- + Clinical or Academic Research



Prime

Broadening the spectrum of quality assurance

Specifications

MODEL INCLUDES

QTY	DESCRIPTION
1	3D printed Head Phantom filled with water by the user. HUs at 120 kVp, for: Bone structures: ~750; Skin: ~250; Central Brain: ~6
1	Gel dosimetry insert* (empty): Cylinder of 160 mm height and Ø 80 mm (inner dimensions: 140 mm x Ø 74 mm), material PMMA or glass
1	Film dosimetry cassette** with 4 metal pins for registration purposes in 2 different orientations; sagittal or coronal: 80 mm x 145 mm (inner dimensions: 70 mm x 145 mm), material RW3
1	Ion chamber/diode/diamond detector Fixed Position dosimetry insert: 120 mm plug of Ø 2 mm (the center of the detector's sensitive volume coincides with the point defined by the external crosshairs of the phantom), material PMMA
1	User Manual
1	24-month Warranty

*: Can be combined with remote 3D dosimetry service

**: Can be combined with remote 2D dosimetry service

OPTIONAL ACCESSORIES

QTY	DESCRIPTION
1	Winston Lutz test insert with central & offset targets: 120 mm plug of Ø 2 mm (Ø 5 mm targets), material PMMA
1	Ion chamber/diode/diamond detector Variable Position dosimetry insert: plug of Ø 12mm and user-defined depths, material PMMA
1	MRI-related geometric distortions evaluation insert: Cylinder of 160 mm height and Ø 80 mm (10 mm x 10 mm x 10 mm 3D grid design, 36 in-plane x 13 planes in z-direction control points), material PMMA
1	OSL dosimetry cassette*** with a 4 mm resolution cross design of 17 pockets for OSL dosimeters in 2 different orientations; sagittal or coronal: 80 mm x 145 mm (inner dimensions: 70 mm x 145 mm) with 4 acrylic rods (5 mm diameter, 10 mm height) for registration purposes, material RW3
1	TLD dosimetry cassette with a 5 mm x 5 mm 2D grid resolution of 99 cylindrical holes for TLD micro cubes dosimeters (hole: diameter 1.6 mm, height 1.1 mm) in 2 different orientations; sagittal or coronal: 80 mm x 145 mm (inner dimensions: 70 mm x 145 mm) with 4 acrylic rods (5 mm diameter, 10 mm height) for registration purposes, material RW3
1	SGRT Positioning check insert with 5 metal spheres of Ø 5 mm at pre-defined positions, material PMMA

***: Can be combined with remote point dosimetry service