**DATA SHEET**

**WATER-EQUIVALENT MULTI-MODULAR PHANTOM FOR QA IN RT**

**DESCRIPTION**

EASY CUBE supports QA measurements in dosimetry and beyond in the field of radiation oncology. The phantom can be used in combination with irradiation detectors like ionization chambers, radiosensitive films and TLDs.

The detectors are positioned inside the phantom with appropriate adapters which consist of the same material as the phantom.

**PACKAGES**

**EASY CUBE CORE PACK**
- EASY CUBE
- EASY CUBE Set of plates
- Accessories
  - 1 EASY CUBE IC Adapter Bar*, Set of Distance Bars & Spacers, Leveling Plate small, Transport & Storage case

**EASY CUBE CYLINDER PACK S or F**
- EASY CUBE
- EASY CUBE Set of plates
- Cylinder Module S/F
  - 4 cylindrical extensions S or F [solid or fillable]
- Accessories
  - 1 EASY CUBE IC Adapter Bar*, Set of Distance Bars & Spacers, Leveling Plate small, Transport & Storage case

**EASY CUBE HEAD/OVAL PACK F**
- EASY CUBE
- EASY CUBE Set of plates
- Head/Oval Module F
  - 2 half-cylinders F
- Accessories
  - 1 EASY CUBE IC Adapter Bar*, Set of Distance Bars & Spacers, Leveling Plate large, Transport & Storage case

**EASY CUBE BODY PACK S**
- EASY CUBE
- EASY CUBE Set of plates
- Body Module S
  - 2 half-cylinders S, Distance Plates body shaped with needles for film alignment
- Accessories
  - 1 EASY CUBE IC Adapter Bar*, Set of Distance Bars & Spacers, Leveling plate large, Transport & Storage case

**EASY CUBE UNIVERSAL PACK**
- EASY CUBE
- EASY CUBE Set of plates
- Body Module S
  - 2 half-cylinders S, Distance Plates body shaped with needles for film alignment
- Cylinder Module F
  - 4 cylindrical extensions F [fillable]
- Accessories
  - 2 EASY CUBE IC Adapter Bars*, Set of Distance Bars & Spacers, Leveling plate large, Transport & Storage case

*EASY CUBE Adapter Bar for ionization chamber has to be specified by customer, depending on his IC of choice*
**DATA SHEET**

**LAP EASY CUBE**

**SINGLE ITEMS**

FOR INDIVIDUAL SET-UP OF EXTENSION MODULES

- **Cylinder Module S / F**
  - 4 cylindrical extensions
  - [solid or fillable]

- **Head/Oval Module F**
  - 2 EASY CUBE half-cylinders F
  - [fillable]

- **Body Module S**
  - 2 EASY CUBE half-cylinders S (solid)
  - Distance Plates body shaped with needles for film alignment (15 plates each 10 mm thick, numbered from 1 to 15, one plate 5 mm thick)

**ACCESSORIES**

- **Set of Inhomogeneous Inserts**
  - [Water, lung, fat, muscle, bone, titan]

- **Detector adapters**
  - EASY CUBE IC Adapter Bar (various types)
  - EASY CUBE Film Adapter Plate
  - EASY CUBE TLD Adapter Plate

- **Stereotactic Localizer Plates**
  - Set of Localizer Plates (6 plates, 24 screws)

**TECHNICAL DATA**

<table>
<thead>
<tr>
<th>Material</th>
<th>Water-equivalent white polystyrene “RW3” for high-energy photon and electron radiation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy range</td>
<td>Photons $^{60}$Co – 25 MV, Electrons 4 – 23 MeV</td>
</tr>
<tr>
<td>Material composition</td>
<td>Polystyrene [C$_8$H$_8$] with admixture of $2.1 % \pm 0.2 %$ TiO$_2$</td>
</tr>
<tr>
<td>Mass density</td>
<td>1.045 g/cm$^3$</td>
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<tr>
<td>$\frac{Z}{A}$ value</td>
<td>0.536</td>
</tr>
<tr>
<td>Electron density</td>
<td>$3.86 \times 10^{23}$ e/g</td>
</tr>
<tr>
<td>Electron concentration</td>
<td>$3.9 \times 10^{19}$ e/cm$^2$</td>
</tr>
</tbody>
</table>

**DIMENSIONS**

| EASY CUBE                  | $180 \times 180 \times 180$ mm |
| Cylinder Module            | $320$ mm diameter, $180$ mm height |
| Head / Oval                | Head: $180$ mm diameter, $180$ mm height |
| Module                     | Oval: $360$ mm length, $180$ mm width, $180$ mm height |
| Body Module                | $360$ mm length, $335$ mm width, $180$ mm height |

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