REFERENCE-CLASS QUALITY

The only microchamber that was designed to meet reference class criteria from IEC 60731 and TG-51

SMALL FIELD EXCELLENCE

Experience the same measurement quality in a microchamber you have come to expect from your reference chamber.

- Rapid settling
- Stable, reproducible measurements
- Realistic and meaningful ion recombination corrections
- Minimal polarity dependence
- Minimal energy dependence

REDUCED VOLUME AVERAGING EFFECTS

Uniform 4.3 mm diameter spot size reduces volume averaging effects and eliminates angular dependencies of volume averaging.

FULLY-GUARDED MICRO-CHAMBER

Each Exradin thimble chamber has a guard that extends well beyond the insulator’s surface, ensuring that the electric field defining the chamber’s collecting volume is cleanly shaped by the guard.
The Exradin Advantage

- MR compatible version available
- Inherently waterproof construction eliminates the need for sleeves or protective coatings.
- Rugged conductive plastic provides years of use.
- Lack of stem-effect and low leakage for precise, reliable measurements.
- Versatile for absolute dosimetry calibrations in water, air or other phantom material.
- Minimal settling time.

**EXRADIN A26 ION CHAMBER (REF 92746) SPECIFICATIONS**

**Example Reference Class Criteria**

<table>
<thead>
<tr>
<th><strong>Reference Class Performance</strong></th>
<th><strong>Exradin A26</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>P_{leak}</strong>: Leakage</td>
<td>&lt; 0.1%</td>
</tr>
<tr>
<td><strong>P_{pol}</strong>: Polarity</td>
<td>&lt; 0.4% correction</td>
</tr>
<tr>
<td><strong>P_{pol}</strong>: Polarity</td>
<td>&lt; 0.5% max variation</td>
</tr>
<tr>
<td><strong>P_{ion}</strong>: ion recombination</td>
<td>Linear with dose per pulse</td>
</tr>
<tr>
<td><strong>Initial recombination</strong></td>
<td>Within 0.3% of unity</td>
</tr>
<tr>
<td><strong>Polarity dependence of P_{ion}</strong></td>
<td>&lt; 0.1% between positive and negative bias</td>
</tr>
<tr>
<td><strong>Chamber stability</strong></td>
<td>within 0.3% change over 2 years</td>
</tr>
</tbody>
</table>

* per TG 51
† not minimum field size

**EXRADIN A26 ION CHAMBER (REF 92746) SPECIFICATIONS**

<table>
<thead>
<tr>
<th><strong>COLLECTING VOLUME</strong></th>
<th>0.015 cm³</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SPOT SIZE</strong></td>
<td>4.3 mm</td>
</tr>
<tr>
<td><strong>CENTROID OF THE COLLECTING VOLUME</strong></td>
<td>(from exterior tip of shell) 1.98 mm</td>
</tr>
<tr>
<td><strong>OUTSIDE DIAMETER OF SHELL COLLECTING VOLUME</strong></td>
<td>4.3 mm</td>
</tr>
<tr>
<td><strong>INSIDE DIAMETER OF SHELL COLLECTING VOLUME</strong></td>
<td>3.3 mm</td>
</tr>
<tr>
<td><strong>SHELL WALL THICKNESS</strong></td>
<td>0.5 mm</td>
</tr>
<tr>
<td><strong>INCLUDED BUILDUP CAP</strong></td>
<td>Co-60</td>
</tr>
</tbody>
</table>

**SHELL, COLLECTOR AND GUARD MATERIAL**

C552 Shonka air-equivalent plastic

**MAXIMUM POLARIZING VOLTAGE**

1000 V

**NOMINAL LEAKAGE CURRENTS**

± 10 fA

**WATERPROOF**

Yes

**PRODUCT STANDARDS**

Designed to meet IEC60601-1, IEC60731

**PATENT PENDING**

Specifications subject to change without notice.

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**Energy Response**

![Energy Response Graph](image)