

# I-125 Ophthalmic Seeds

## Product Information



IBt Bebig IsoSeeds® I-125 for medical use (I25.S16) are mostly applied for treatment of uveal melanoma, retinoblastoma, and other special applications. IsoSeeds® I-125 contain a cylindrical-shaped ceramic saturated with an iodine-125 compound, which is enclosed by a laser-welded titanium tube.

### ■ Application

For treatment with IsoSeeds® I-125 additional accessories are required. The seeds are suitable for all common ophthalmic seed-applicators.

### ■ Planning

Treatment planning of an assembled set of seeds is based on the seed data according to the AAPM TG-43 formalism. The applicator influence on the effective dose rate distribution has to be considered.

### ■ Calibration

The certified source strength is traceable to the NIST primary air kerma strength standard.

### ■ Packaging

IsoSeeds® I-125 for medical use are supplied non-sterile in a special transport container.

### ■ IBt Bebig accessories for eye plaque radiotherapy

**COMS Applicators:** reusable gold COMS plaque shells and silicon COMS inserts provide defined seed positions for each treatment.

**Diaphanoscope:** fibre optic light source to illuminate the eye ball and make the tumour visible. This helps to properly position the plaque on the tumour.

**Safety container:** for shielded steam sterilisation.

**Plaque Simulator software:** for training and demonstration of eye plaque brachytherapy with I-125 seeds.

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## ■ IsoSeed® I-125 details

IsoSeeds® I-125 are brachytherapy sources based on the isotope above with a half-life of 59.40 days. It decays as a result of electron capture by emission of X-rays and  $\gamma$ -radiation in the energy range up to 35 keV. The electrons emitted during this decay will be absorbed by the titanium capsule material.

## ■ Source strength

The air kerma strength of every IsoSeed® I-125 is measured individually and converted into apparent activity. The standard deviation corresponding to the mean value of the batch is less than  $\pm 7\%$ .

## ■ Activities available

IsoSeeds® I-125 for medical use are offered by IBt Bebig in 14 ranges of apparent activity from 0.20 mCi to 25 mCi (see table). These ranges serve as order value for the seed batch to produce.

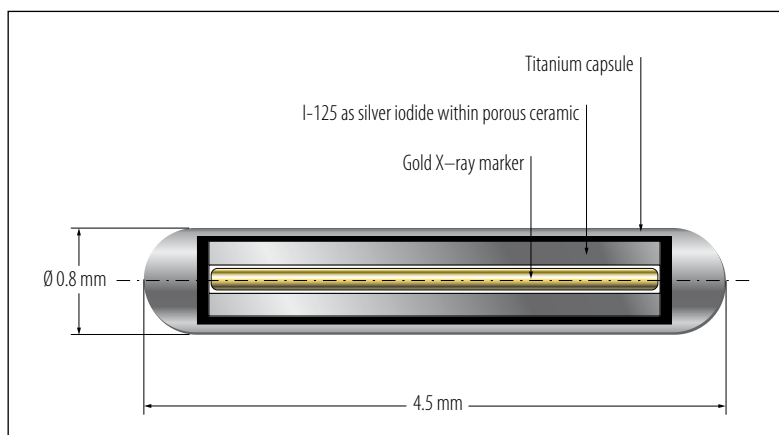
## ■ ISO-classification

IsoSeeds® I-125 are classified in accordance with ISO 2919 as C63211.

## ■ Expiring date

The application period for IsoSeeds® I-125 is limited to maximum 6 months after the date of manufacture.

The information given above is not sufficient for safe handling of the product. For more detailed information please refer to the instructions for use.



■ IsoSeed® I-125 details

Range	Air kerma strength in $\mu\text{Gy m}^2/\text{h}$	Apparent activity in mCi	Apparent activity in MBq
A01	0.25 – 1.96	0.2 – 1.5	7.4 – 57
A02	1.97 – 3.23	1.6 – 2.5	58 – 94
A03	3.24 – 4.50	2.6 – 3.5	95 – 131
A04	4.51 – 5.77	3.6 – 4.5	132 – 168
A05	5.78 – 7.04	4.6 – 5.5	169 – 205
A06	7.05 – 8.31	5.6 – 6.5	206 – 242
A07	8.32 – 9.58	6.6 – 7.5	243 – 279
A09	9.59 – 11.48	7.6 – 9.0	280 – 334
A10	11.49 – 13.39	9.1 – 10.5	335 – 390
A12	13.40 – 15.93	10.6 – 12.5	391 – 464
A14	15.94 – 18.47	12.6 – 14.5	465 – 538
A17	18.48 – 22.28	14.6 – 17.5	539 – 649
A20	22.29 – 26.09	17.6 – 20.5	650 – 760
A25	26.10 – 31.75	20.6 – 25.0	761 – 925

■ Activities available

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