

IRIDIUM 192 (Ir-192)

SEALED RADIOACTIVE SOURCES

Ir-192 sealed sources are primarily employed in gamma radiography, specifically for applications where high-quality film resolution is crucial in the field of non-destructive testing.

When compared to other sealed sources utilized in similar applications, Ir-192 offers exceptional exposure quality.

These capsules, constructed from stainless steel and filled with highly purified activated Iridium, undergo stringent manufacturing processes adhering to precise ISO standards.

Each source is meticulously welded and tested to meet the requirements of Special Form Certification.

- **Short Delivery Time:** 2-3 weeks
- **Steel Working Thicknesses:** from 12 mm to 100 mm.
- **Exposure Rate Constant at 1 m:** 0,48 R-m²/hr-Ci
- **Gamma Spectrum:** is from 206 keV to 612 keV giving a resultant average energy of 353 keV
- **HVL:** Fe 28 mm, Tg 4,6 mm
- **TVL:** Fe 69 mm, Tg 14 mm



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DESCRIPTION

Stainless steel capsule argon arc welded, containing Iridium pellets. The Iridium is centered in pellets of uniform size, and their thickness is selected for the best geometry. Using a combination of pellets, the source can be manufactured with an active diameter ranging from 1 mm to 3 mm and a height ranging from 1 mm to 3 mm which enables the versatility, to produce sources the exact dimensions and activities the customers require for their specific applications. Sources are mounted on pigtails or link type source holders.

TECHNICAL SPECIFICATIONS

Main Application	Gamma radiography
Ir-192 Half Life	74 days
Recommended Working Life	1 year
Ir-192 Capsule Type	Special form certified
Single Encapsulation	Special form certified
Double Encapsulation	Special form certified
Material	Stainless Steel
Identification	Unique Serial Number
Certificate Material Special Form	Certified

FOCAL SPOT SIZES		MAXIMUM ACTIVITY (±10%)	
Active Diameter (mm)	Active Height (mm)	GBq	Ci
1.0	0.4	148	4
1.0	0.6	222	6
1.0	1.0	333	9
1.5	1.0	666	18
1.5	1.2	740	20
1.5	1.6	1,036	28
2.0	1.0	1,110	30
2.0	1.2	1,332	36
2.0	1.6	1,776	48
2.0	2.0	2,220	60
3.0	2.0	3,700	100
3.0	2.2	4,070	110
3.0	2.4	4,440	120
3.0	3.0	5,920	160
3.0	4.0	7,400	200

CAPSULE DIMENSIONS AND SAFETY PERFORMANCE TESTING

Ir-192 Capsule Type	External Dimensions ø (mm) x h (mm)	External Capsule Material	ISO classification
Various dimensions	4 (min) x 8 (max)	Stainless Steel 1H18N9T	Various ISO classification code

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