

Cobalt-57

γ and Primary X-ray Sources

Point Sources

Cobalt-57 is incorporated as an ion exchange resin pellet and sealed in a welded stainless steel capsule.

Nominal activity*		Capsule	Typical photon output in photons/s per steradian 122keV + 136keV	Product code
MBq	mCi			
37	1	X.100	2.5×10^6	CTC10022
111	3	X.100	7.5×10^6	CTC10033
37	1	X.100/2	2.6×10^6	CTC10122
111	3	X.100/2	7.2×10^6	CTC10124

* Tolerance +20%, -10%

Recommended working life: 5 years

The sources emit γ-rays (principally 122keV and 136keV) and some fluorescent W KX-rays produced in the source backing. The impurity of other cobalt isotopes (Co-56, Co-58, Co-60) is < 0.2% of the Co-57 activity and is determined by γ-spectrometry.

Co-56 and Co-58 emit a wide range of γ-rays, energies 511keV-3.45MeV.

Co-60 emits γ-rays of energies 1.17MeV and 1.33MeV.

Quality control

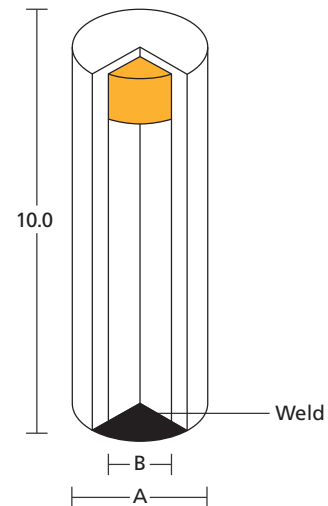
Wipe Test I

Immersion Test II

Photon emission and γ-impurities checked using a Ge-detector.

X.100 *
VZ-2760

X.101/2 **
VZ-2761



Capsule dimensions and safety performance testing

Capsule	Overall diam. 'A'/mm	Active diam. 'B'/mm	Safety performance testing ANSI/ISO classification	US-Model number
X.100	2.0	1.0	C64444	CTC.P2
X.101/2	3.0	2.0	C64444	CTC.P1

* X.100 manufactured according to drawing VZ-2760

** X.101/2 manufactured according to drawing VZ-2761

Cobalt-60

X.2163

Gamma Sources

Metal cylinders of Co-60 doubly encapsulated in welded stainless steel capsules.

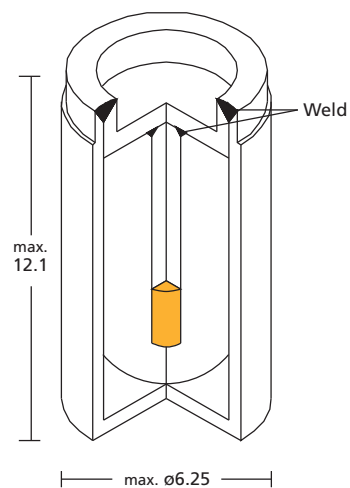
Nominal activity *		Product code
GBq	Ci	
37	1	CKUNZ001
74	2	CKUNZ002
111	3	CKUNZ003
148	4	CKUNZ004
185	5	CKUNZ005

* Tolerance: +25%, -10%

Recommended working life: 15 years

Quality control

Wipe Test I
Immersion Test II
Bubble Test III



Safety performance testing

ANSI/ISO classification number	IAEA special form	US-Model
C63545	YES	CKC.P6

Cobalt-60

Gamma Sources

Metal cylinders of Co-60 encapsulated in welded stainless steel capsules.

Nominal activity *		Product code	Product code
MBq	mCi	VZ-1486/3	VZ-64/1
3.7	0.1	CKCB2002	CKC6401
18.5	0.5	CKCB2006	CKC6402
37	1.0	CKCB2008	CKC6403
74	2.0	CKCB2011	CKC6404
110	3.0	CKCB2012	CKC6405
185	5.0	CKCB2013	CKC6406
300	8.1	CKCB2016	CKC6407
370	10.0	CKCB2017	CKC6408
550	14.9	CKCB2018	CKC6409
740	20.0	CKCB2019	CKC6410
925	25.0	CKCB2020	CKC6411
1.1 x 10 ³	30.0	CKCB2021	CKC6412
1.5 x 10 ³	40.0	CKCB2022	CKC6413
1.85 x 10 ³	50.0	CKCB2023	CKC6414
2.2 x 10 ³	60.0	CKCB2025	CKC6415
2.8 x 10 ³	75.0	CKCB2027	CKC6416
3.7 x 10 ³	100.0	CKCB2029	CKC6417
5.5 x 10 ³	148.6	CKCB2034	CKC6418
7.4 x 10 ³	200.0	CKCB2037	CKC6419
9.25 x 10 ³	250.0	CKCB2039	CKC6420
11 x 10 ³	297.3	CKCB2040	CKC6421
15 x 10 ³	405.4	CKCB2043	CKC6422
18.5 x 10 ³	500.0	CKCB2044	CKC6423
22.2 x 10 ³	600.0	CKCB2046	CKC6424
25.9 x 10 ³	700.0	CKCB2047	CKC6425
29.6 x 10 ³	800.0	CKCB2049	CKC6426
33.3 x 10 ³	900.0	CKCB2050	CKC6427
37 x 10 ³	1000.0	CKCB2051	CKC6428

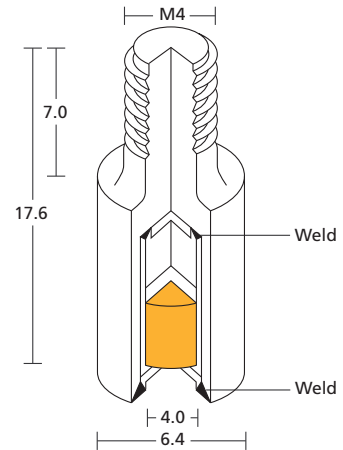
* Tolerance: ±10%

Recommended working life: 15 years

Quality control

- Wipe Test I
- Immersion Test II
- Bubble Test III

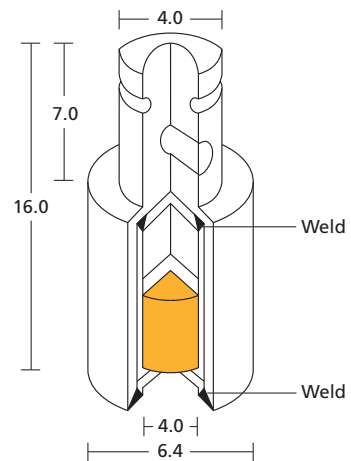
VZ-1486/3



Safety performance testing

ANSI/ISO classification number	IAEA special form	US-Model number
C66646	YES	CKC.P4

VZ-64/1



Safety performance testing

ANSI/ISO classification number	IAEA special form	US-Model number
C66646	YES	CKC.P4

Cobalt-60

VZ-260/2

Gamma Sources

Metal cylinders of Co-60 encapsulated in welded stainless steel capsules.

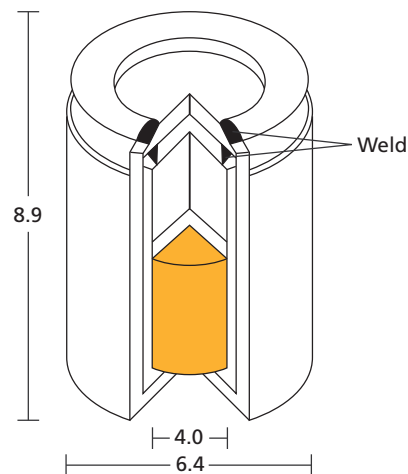
Nominal activity *		Product code
MBq	mCi	
3.7	0.1	CKC6001
18.5	0.5	CKC6002
37	1.0	CKC6003
74	2.0	CKC6004
110	3.0	CKC6005
185	5.0	CKC6006
300	8.1	CKC6007
370	10.0	CKC6008
550	14.9	CKC6009
740	20.0	CKC6010
925	25.0	CKC6011
1.1 x 10 ³	30.0	CKC6012
1.5 x 10 ³	40.0	CKC6013
1.85 x 10 ³	50.0	CKC6014
2.2 x 10 ³	60.0	CKC6015
2.8 x 10 ³	75.0	CKC6016
3.7 x 10 ³	100.0	CKC6017
5.5 x 10 ³	148.6	CKC6018
7.4 x 10 ³	200.0	CKC6019
9.25 x 10 ³	250.0	CKC6020
11 x 10 ³	297.3	CKC6021
15 x 10 ³	405.4	CKC6022
18.5 x 10 ³	500.0	CKC6023
22.2 x 10 ³	600.0	CKC6024
25.9 x 10 ³	700.0	CKC6025
29.6 x 10 ³	800.0	CKC6026
33.3 x 10 ³	900.0	CKC6027
37 x 10 ³	1000.0	CKC6028

* Tolerance: ±10%

Recommended working life: 15 years

Quality control

Wipe Test I
 Immersion Test II
 Bubble Test III



Safety performance testing

ANSI/ISO classification number	IAEA special form	US-Model
C64444	YES	CKC.P4