

PACKAGING SET UK 80 TYPE B(U)

USE

The packaging set **UK 80 type B (U)** is designed for transporting radioactive substance in a special form or other than a special form including liquids in a shielding package in basic make or extended make of the shielding package with the shielding insert in the pocket area. In the package basic make, the pocket area with usable volume has dimensions of $\varnothing 156 \times 155$ mm; with the use of the pocket casing the volume changes to dimension $\varnothing 132 \times 138$ mm. In the package extended make, the pocket area with usable volume is $\varnothing 50 \times 52$ mm; with the use of the pocket casing the volume changes to dimension $\varnothing 28 \times 44$ mm.

The permitted radioactive content in the **packaging set basic make** can under conditions of exclusive transport in individual radionuclide reach the maximum activity and heat output as flows:

Radionuclide	⁶⁰ Co	⁵⁸ Co	¹³⁷ Cs	⁹⁰ Sr	⁸⁹ Sr	⁸⁵ Sr
Max. activity [TBq]	0,29	15,4	2900	5495	100000	6600
Heat output [W]	0,115	2,4	253	537	1,45	537
Radionuclide	²²⁶ Ra	¹⁹² Ir	⁹⁰ Y	⁶⁷ Ga	¹⁴⁷ Pm	⁸⁵ Kr
Max. activity [TBq]	0,16	522	14,6	5700	6,02	55
Heat output [W]	0,046	69	2,08	152	1,32	1,4
Radionuclide	¹¹¹ In	¹³³ Ba	^{137m} Ba	^{99m} Tc	¹²⁵ I	¹³¹ I
Max. activity [TBq]	8561	9259	2600	26800	3,16 E ⁶	8840
Heat output [W]	537	537	245	537	59	537
Radionuclide	¹⁴ C	⁵¹ Cr	³⁵ S	¹³³ Xe	²³⁹ Pu	¹⁸ F
Max. activity [TBq]	434	114000	19800	4130	44	3381
Heat output [W]	3,6	537	537	20	0,00	537
Radionuclide	²⁴¹ Am					
Max. activity [TBq]	1720					
Heat output [W]	0,2					

The permitted radioactive content in the **packaging set with the shielding insert** can under conditions of exclusive transport in individual radionuclide reach the maximum activity and heat output as flows:

Radionuclide	⁶⁰ Co	⁵⁸ Co	¹³⁷ Cs	⁹⁰ Sr	⁸⁹ Sr	⁸⁵ Sr
Max. activity [TBq]	49,7	1600	319	692	1,44 E ⁵	6600
Heat output [W]	19,8	250	28	67	537	537
Radionuclide	²²⁶ Ra	¹⁹² Ir	⁹⁰ Y	⁶⁷ Ga	¹⁴⁷ Pm	¹⁵² Eu
Max. activity [TBq]	8,8	4070	3765	20000	682,4	121
Heat output [W]	2,5	537	537	537	150	18,6
Radionuclide	¹¹¹ In	⁵⁴ Mn	³² P	^{99m} Tc	¹²⁵ I	¹³¹ I
Max. activity [TBq]	8561	3980	6	26800	1,5 E ⁵	8840
Heat output [W]	537	537	1,6	537	2,8	537
Radionuclide	¹⁴ C	⁵¹ Cr	³⁵ S	¹³³ Xe	²³⁹ Pu	¹⁸ F
Max. activity [TBq]	21,7	114 000	19800	2060	2,2	3380
Heat output [W]	0,2	537	537	10	0,00	537
Radionuclide	²⁴¹ Am	¹³³ Ba	^{137m} Ba			
Max. activity [TBq]	86	1660	5684			
Heat output [W]	0,01	96	537			

Under the conditions of non-exclusive transport, it is possible to transport radionuclide which do not exceed the heat output of 124 W.

It is also possible to transport radioactive substances non-specified above in the packaging set up to the value A₁, A₂ as per table 1, attachment no. 3 regulation no. 317/2002 Coll. or as per table I, part IV, Safety Standards No TS-R-1 (ST 1, revise), Regulations for Safe Transport of Radioactive Material 1996 Edition, IAEA.

The use is possible providing the input of the feeding equivalent on the external surface of the packaging set does not exceed 2mSv/hour and at 1 m distance from the surface 0.1 mSv/hod.

TECHNICAL DATA

Packaging set	Type B(U) for other than special form including liquid and a special form of radioactive substances
<u>The shielding package in a basic make</u>	
Number of pockets	1
Dimensions of the pocket area	Ø 156 ×155 mm
Dimensions of the pocket casing	Ø 155 ×153 mm
Dimensions of the casing useful area	Ø 132 ×138 mm
Thickness of the uranium shielding	Min 70 mm
Thickness of the steel shielding	Min 13 mm
Weight of the pocket casing	6 kg
<u>Shielding package with the shielding insert</u>	
Number of pockets	1
Dimensions of the pocket area	Ø 50 ×52 mm
Dimensions of the pocket casing	Ø 49 ×50 mm
Dimensions of the casing useful area	Ø 28 ×44 mm
Thickness of the uranium shielding	Min 115 mm
Thickness of the steel shielding	Min 19 mm
Shielding insert weight	44 kg
Weight of the pocket casing	0.5 kg
External dimensions of the shielding package	Ø 322 x 387 mm
Max. weight of the shielding package (with Shielding insert and including the radioactive content)	445 kg (data on the label)
External dimensions of the package set	Ø 560 x 580 mm
Max. weight of the package set (with shielding insert and including the radioactive content)	635 kg (data on the label)

Shielding package UK 80
Weight 445 kg



Package set UK 80

Weight 635 kg

