# **Absorber Set**

for radiation



## AP0030-001 Set of 24 Absorbers

A set of 24 different plates used to study the absorption of radioactive energies.

The plates range from Tissue Paper and very thin foils for Alpha particle absorption to thicker aluminium foils and plates for Beta particle absorption to lead plates for Gamma particle absorption.

Each lead absorber has an active area of 60x60mm and the aluminium and tissue have an active area  $50 \times 56mm$ .

The complete set is housed in a strong cardboard container with an insert for the storing of each absorber.

The set also includes a holder with a strong spring loaded plunger and base for both the radioactive source and the absorber so that these items are always in the same relative positions for reproducible experiments

In addition to absorbers, the set contains 3x plastic plates used for supporting the thick lead plates in Fisher universal castle (XKS-540-W).

### Kit contains holder for absorbers and for radioactive sources behind the absorber..

Length: 240mm	Width: 200mm	Height: 85mm	Weight: 3.3kg	

#### The specifications for each absorber are:

#	Material	Thickness	Density	#	Material	Thickness	Density
17	Aluminium	2.91 mm	786 mg/cm <sup>2</sup>	18	Lead	1.73 mm	1.95 g/cm <sup>2</sup>
16	Aluminium	2.45 mm	661 mg/cm <sup>2</sup>	19	Lead	3.04 mm	3.43 g/cm <sup>2</sup>
15	Aluminium	1.97 mm	532 mg/cm <sup>2</sup>	20	Lead	4.41 mm	4.94 g/cm <sup>2</sup>
14	Aluminium	1.58 mm	426 mg/cm <sup>2</sup>	21	Lead	6.20 mm	7.02 g/cm <sup>2</sup>
13	Aluminium	1.18 mm	318 mg/cm <sup>2</sup>	22	Lead	7.75 mm	8.73 g/cm <sup>2</sup>
12	Aluminium	0.93 mm	251 mg/cm <sup>2</sup>	23	Lead	9.36 mm	10.58g/cm <sup>2</sup>
11	Aluminium	0.76 mm	205 mg/cm <sup>2</sup>	24	Lead	12.2 mm	13.16g/cm <sup>2</sup>
10	Aluminium	0.60 mm	162 mg/cm <sup>2</sup>				
9	Aluminium	0.48 mm	130 mg/cm <sup>2</sup>				
8	Aluminium	0.31 mm	83.7 mg/cm <sup>2</sup>				
7	Aluminium	0.25 mm	67.5 mg/cm <sup>2</sup>				
6	Aluminium	0.15 mm	40.5 mg/cm <sup>2</sup>				
5	Aluminium	0.10 mm	27.0 mg/cm <sup>2</sup>				
4	Aluminium	0.050mm	13.5 mg/cm <sup>2</sup>				
3	Aluminium	0.018mm	4.30 mg/cm <sup>2</sup>		Plastic	Plastic plates with different orifices to support absorbers when used in castles.	
2	Aluminium	0.015mm	4.05 mg/cm <sup>2</sup>		Plastic		
1	Tissue	Paper	1.82 mg/cm <sup>2</sup>		Plastic		

IEC manufactures a range of high quality, low cost Geiger Counters suitable for both the Laboratory and in the field.

#### Parts & accessories:

AP1885-001 Geiger tube holder, to align GM tube with absorber holder.

Low level radioactive sources suitable for classroom use are:

PA2667-005 Polonium 210 Alpha source

PA2667-010 Strontium 90 Beta source

PA2667-020 Cobalt 60 Gamma source



#### Designed and manufactured in Australia