

# Radioactive Source Lead Shield

## For Educational Grade Radioactive Sources



\* Radioactive Sources are not included

### PA2667-060 Lead Shield for up to 4 Radioactive Sources

#### Description:

These lead shields are useful for safer storage. The school grade radioactive sources are mounted in a 25mm diam. x 5mm thick plastic disc with the symbol printed. Although radioactivity level is very low, the sources should not be carried around for long periods or placed in pockets of clothing against one's body.

#### For Educational Grade Radioactive Sources:

Catalogue No:	Material:	Particle:	Strength:
PA2667-005	Polonium 210	Alpha	0.1 µCi or 3.7 kBq (+/- 1)
PA2667-010	Strontium 90	Beta	0.1 µCi or 3.7 kBq (+/- 1)
PA2667-020	Cobalt 60	Gamma	1.0 µCi or 37 kBq (+/- 10)

Length: 80mm	Width: 80mm	Thickness: 18mm	Weight: 500g
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## Useful Conversion Information:

1 Bq (Becquerel) = 1 disintegration per second =  $27 \times 10^{-12}$  Curie (Ci)

1 kBq =  $27 \times 10^{-9}$  nCi (nano Curie)

1 kBq =  $27 \times 10^{-6}$  uCi (micro Curie)

1 Ci =  $37 \times 10^9$  Bq = 37 GBq (giga Becquerel)

## Caution To Be Followed:

These school grade radioactive sources have a very low level of activity and do not require licensing, however they should be handled with care. The following rules should be followed:

- Unnecessary handling of sources should be avoided. Do not place into pockets of clothing or carry bags etc..
- As general practice, radioactive sources should always be handled with tongs or forceps to keep them at least 30cm away from user.
- Handle the alpha source with special care to avoid damage to the fragile metallic coating over the material.
- For Alpha sources, a thin aluminium sheet provides sufficient absorption.
- For Beta sources, about 4 to 6mm thick lead is required for full absorption.
- For Gamma sources, thick lead is required to absorb most of the radiation.

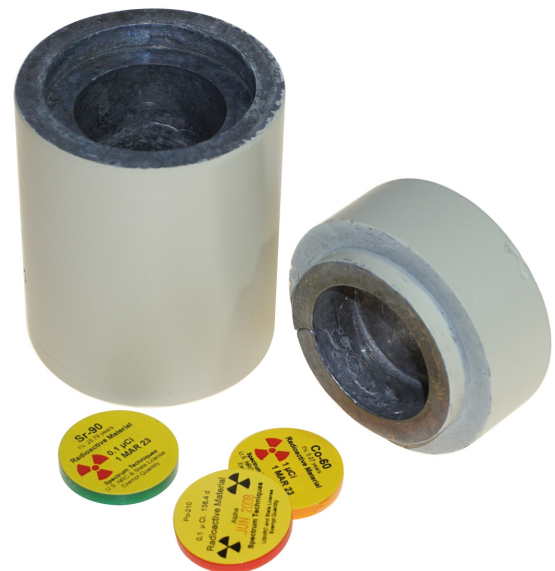
School sources are very low activity and storage several metres away from persons is generally acceptable as a precaution.

However, if multiple sources are to be stored, the 3.3mm thick lead shield PA2667-060 can carry up to 4x mixed Radioactive Sources for reduced emission and safer storage.

For bulk numbers of gamma sources, their radiation activities add together and therefore a thicker lead container is required for providing suitable protection.

A bulk lead container for sources, (often known as a "pig"), is available for up to 10 gamma sources or mixed sources.

See image :



Radioactive Source Storage Container  
PA2667-050

Designed and Manufactured in Australia

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