

**SUPPLIERS TO INDUSTRY**

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Technical Data Sheet  
Issue 1.0

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## **RADIFEND** Silicone Radiation Shielding (Flat Sheet Versions)

### **PRODUCT DESCRIPTION**

Radifend is a totally encapsulated radiation shielding system for use in the nuclear, defence and Non Destructive Testing (NDT) industries.

Available in standard, custom sizes and moulded shapes, Radifend provides a unique method of radiation protection in many different gamma & x-ray shielding situations.

### **FEATURES**

- Flexible material – can be bent and shaped allowing installation in difficult to access locations.
- Low in chlorine, fluorine and sulphur for use in contact with stainless steel.
- Easily cleaned means Radifend can be reused many times.
- Encased and hermetically sealed means there are no sharp edges.
- Fire Retardant
- Complete protection is guaranteed by the homogenous shielding material which cannot slump to the bottom as with conventional PVC bags.
- Resistant to high temperatures
- Integral polymer reinforcement for added strength.
- Available in bespoke moulded shapes.
- Full technical and product support.

### **PRODUCT DATA (Standard items)**

| <b>Stock Code</b> | <b>Dimensions</b>  | <b>Weight (approx)</b> |
|-------------------|--------------------|------------------------|
| RAD/000/000/0001  | 915 x 305 x 9.5 mm | 11.0 kg                |
| RAD/000/000/0002  | 915 x 305 x 16 mm  | 21.0 kg                |

(Non-standard sizes & thicknesses available to order)

### **Optional extras**

|                         |   |
|-------------------------|---|
| Stainless Steel Eyelets | Factory fitted to Radifend flat sheets for hanging purposes.  |
| Stainless Steel Hooks   | Various designs of hooks are available  |
| PVC Protective Bag      | Designed to provide extra protection to product when used in harsh Non- Destructive Testing Environments. |

Please enquire for advice and ordering instructions with regard to the above items.



## Shielding Characteristics

| Thickness | Source      | Attenuation | Attenuation Factor | Lead Equivalence |
|-----------|-------------|-------------|--------------------|------------------|
| 9.5 mm    | Cobalt 60   | 20%         | 1.25               | 3.3 mm           |
|           | Caesium 137 | 34%         | 1.51               | 3.2 mm           |
| 16 mm     | Cobalt 60   | 34%         | 1.51               | 6.2 mm           |
|           | Caesium 137 | 52%         | 2.10               | 5.9 mm           |

All radiological tests carried out in laboratory conditions by Public Health England in accordance with IEC 61331-1:2014.

## Chemical Analysis – Outer laminate

| Element  | Test Method    | Analysis    |
|----------|----------------|-------------|
| Chlorine | ASTM D7359 Mod | 22.0 mg/kg  |
| Fluorine | ASTM D7359 Mod | 2.3 mg/kg   |
| Sulphur  | EN ISO 8754    | 171.7 mg/kg |

**Temperature Range** -85 to 200C

**Other Radifend products include pipewraps and custom mouldings to suit customer specific applications. Please enquire for further information.**

### Precaution:

For complete safety and handling information, please refer to the appropriate Material safety Data Sheet prior to using this product.

### Warranty:

Thomson Bros will replace any material found to be defective. Because the storage, handling and application of this material is beyond our control we can accept no liability for the results obtained.

**Disclaimer:** All information on this data sheet is based on laboratory testing and is not intended for design purposes. All dimensions and weights are nominal and subject to manufacturing tolerances. Thomson Bros make no representations or warranties of any kind concerning this data.

For technical assistance please call + 44 (0)191 2160397