# RF (Radio Frequency) Shielded Doors for Containers









European EMC Products design and manufacture a wide range of RF Shielded Doors to fit into ISO type containers, for a wide variety of applications and meet all worldwide performance standards.

## **RF Performance**

Electric and Planewave Mode 10 MHz to 10 GHz 40 dB

# **Shielding Effectiveness**

The shielding effectiveness (SE) of an RF shield is defined by the ratio of signals strengths inside and outside of the shield, ie how much does the shield reduce the signal. To make this easier to use it is expressed as a ratio in dB (decibels).

# Shielding effectiveness (dB) = $20 \log V^2 / V^2$ .

Shielding Effectiveness is achieved using copper beryllium contacts to maintain continuous electrical conductivity between the door and frame.

V1 is the signal strength outside the shielding and V2 the signal strength inside the shield.

As SE is expressed logarithmically it is important to note these ratios:

20dB is a reduction by a factor of 10

40 dB is a reduction by a factor of 100

60 dB is a reduction by a factor of 1,000

# An RF Shielded Door Consists of the following:

Single leaf knife edge door with manual 2 point latching mechanism. Mounting point, Hasp and staple for padlock.

Door Leaf; Galvanised steel, unpainted.

Door Frame; Mild steel primer painted, or finished with hard wearing paint.

Latch cover box and hinges, powder coated black.

2 part weather seals



External Weather Seal & Mounting Point for Padlock



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Shielded Door Fitted to Container

EEP RF Shielded Door Fitted Onto ISO Style Container

## **About Us**

Established in 1996, European EMC Products (EEP) are an established British company whose experience and understanding of the science of shielding makes it an ideal partner in whom you can place your trust with confidence. The purpose of installing EEP shielding systems is to protect people and equipment against the threats posed by electromagnetic and radio frequency (RF) interference, radiation, magnetic fields and electromagnetic pulses. Our diverse range of turnkey products and services, including design, project management, testing and consultancy are delivered across multiple sectors to an international client base.

# Quality

European EMC Products Limited are registered to BS EN ISO 9001:2015, Certificate Number FS38901.

Registered Scope: The design, assembly, installation, servicing and testing of RF Shielded Structures and equipment including EMI Shielding, Blast Doors, Gas Tight Doors and specialised mobile Electromagnetic Pulse Protection (EMPP) containers.

Radio Frequency, Magnetic Shielding and Quench systems for MRI (Magnetic Resonance Imaging) scanners.

The design, assembly and installation of Ionising Radiation Protection facilities.

The design, manufacture and installation of LED lighting systems for medical applications.

EEP Filters Limited are registered to BS EN ISO 9001:2015, Certificate Number FS38901.

Registered Scope: The design, manufacture, management of installation and testing of high performance EMC and EMP Power and Data Line Filters.

### Disclaimer

NB: All the information provided within this datasheet is for reference only. Product specifications are subject to change without notice.

