

ARCHITECTURAL SHIELDING USING ALUMINIUM



European EMC Products Ltd



The shielding material should comprise of: 100 to 125 micron aluminium sheet bonded and overlapped to all walls and ceiling, all joints should be over lapped by 100 mm and sealed with metallic tape.

Floor should be shielded with 1 mm thick galvanised steel sheets, fixed to the floor with percussion type fixings, all sheets will be overlapped and sealed with tape with conductive adhesive.

Steel sheet should also be fixed to the wall and ceiling where these coincide with the internal partition walls to be installed on completion of the shielding.

RF shielded doors should be of steel construction with TCS (tin coated steel) knit mesh gasket for RF performance. 2 point latching should be used to ensure uniform compression of the gasket.

Ventilation grills should be of steel or aluminium honeycomb minimum thickness 12.7mm, 25.4 mm for higher frequencies.

Pipe penetrations should be prefabricated into 2 mm steel plates then bonded to the shield.

Windows should be shielded using an internal secondary RF shielded glazed unit of stainless steel mesh bonded between glass sheets.

Cable penetrations, ie power and data should enter the shield room through RF filters mounted on steel penetration panels.

Internal fixing points for decorative finishes should be metallic, ie steel studding frames used for plasterboard. The fixings can be mounted through the aluminium sheet but should then be sealed over using metallic tape. The number of fixings through the aluminium should be kept to a minimum.

RF Shielding Performance

40 dB of attenuation of radiated electric and planewave signals over the frequency range 10kHz to 10 GHz can be achieved.

European EMC Products Limited

Unit 8 : Saffron Business Centre : Elizabeth Way : Saffron Walden : Essex : CB10 2NL

Registered in England Number 3209118 : VAT Number 676 5479 78

Tel + 44 1799 523073 : Fax + 44 1799 521191 Email : info@euro-emc.co.uk : Web : <http://www.euro-emc.co.uk>