SPECIFICATION SHEET NO:	PSA 11	DESCRIPTION:	POLYFLOR EC 2.00MM	DATE:	AUG 2023

ARCHITECTURAL SPECIFICATIONS / BOQ

SPECIFICATION:

Supply and install Polyflor EC flexible PVC sheet flooring with electrostatic conductive properties in 2.0mm thickness, homogeneous and monolayer in construction, the electrostatic conductive properties must be present throughout the full product thickness, the flooring shall conform fully with the requirements of EN 649/ISO 10581, in respect of flame spread, the flooring shall have been fully tested to EN 13501-1 and certified as having Class Bfl-S1, achieving the criteria EN ISO 9239-1 ≥8kw/m2 and the mandatory requirement of EN ISO 11925-2 pass. It shall be tested to ASTM E648 and certified as having passed with a Class 1 rating, making it suitable for use in institutional, commercial and public buildings, with regard to EN 13893 for slip resistance, the flooring shall be classified DS, making it suitable for use in areas which are predominantly dry, but with occasional spillage, the product must have been fully tested for abrasion resistance to the Frick Taber test EN 660: Part 2 and be in abrasion group M, as defined in EN 649, with regard to electrostatic conductive properties, the flooring must conform to the requirements of HTM2. Tested to ASTM F150 the flooring must have a resistance of between 2.5 x 104 to 1 x 106 ohms. When tested to EN 1081 R1/R2 the flooring must have a resistance of between 5x104 to 1x106 ohms, when tested to ESD S7.1, the flooring must have a resistance of between 5x104 to 1x106 ohms. Tested to BS IEC 61340-4-1 2003 Rg, the flooring must have a resistance between 5x104 to 1x106 ohms. When tested to BS 2050 the surface resistance and resistance to earth should be between 5x104 to 2x106 ohms, when tested to BS EN/IEC 61340-4-5 the flooring must have a resistance of <1x109 and chargeability <100v, in accordance with EN 649, the in-use classification must be at least 34/43 as defined in EN 685: i.e., commercial areas with very heavy use; and light industrial areas with heavy use, the flooring must be available in 2.0 metre width, to minimise the number of joints, in respect of light fastness, the flooring shall have been fully tested to ISO 105-B02 Method 3 and obtain ≥6

Colour: Code:

INSTALLATION: (PLEASE NOTE: ALWAYS USE COMPATIBLE PRODUCTS FROM ONE SUPPLIER)

1. All ESD installations must be tested for moisture using the Polyflor approved Wagner Meter/Protimeter.

2. Regardless of the moisture levels, it is highly recommended that all ESD installations have a moisture barrier approved by Polyflor applied to the surface prior to self-levelling and application of the earthing grid and floor sheeting.

3. The only recommended adhesive for ESD installations onto a concrete substrate is a water based acrylic conductive adhesive and onto a metal substrate is a neoprene conductive adhesive. Generally, it is preferred that a Polyflor recommended conductive contact adhesive is used.

4. All earthing methods and grids must be laid out as per diagram below. Stainless steel tape is available from Polyflor.

5. ESD flooring should never be sealed unless a specialized static conductive sealer is used.

CONDUCTANCE TO EARTH

>>Installing an earth system is a prerequisite for all ESD floors. This gives the end user the ability to test to earth. It ensures the conductance of the installed floor is to a known earth via a predetermined and controlled path.

>>The choice of material used for the earth system must be stainless steel and should be nominally 50mm wide and 0.1mm thick. The width and gauge are governed by the performance standard for products such as Polyflor ROF.

>>The use of at least two connections to earth is recommended: if the first is disconnected or damaged, the second is a security back-up.

>>Connection of the earth system to the building earth is normally carried out by a qualified electrician and not the flooring contractor.>>The earth strip is laid 150mm from one side of the room, in the same direction as the vinyl sheets are to be laid. This strip is connected to a known earth.

>>A second strip is laid at 90° to the first, 150mm from the edge and running full width across the room.

>>Further strips are laid at 20-meter intervals as determined by the size of the room.

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INSTALLATION METHODS

The basic techniques for installation of Polyflor ESD floor coverings are the same as described for standard vinyl sheet and tile; however, there are several important differences:

ESD Vinyl Sheet

Polyflor ESD vinyl sheet should be installed by the double drop method. This is because the conductive adhesive contains carbon, which results in low tack.

>>Once the adhesive has been spread, the vinyl sheet is laid into it and pressed all over to ensure an even transfer of adhesive.

>>The vinyl sheet is then folded back and left until the adhesive becomes tacky.

>>When the adhesive is tacky, the vinyl sheet should be accurately re-laid, ensuring it does not twist or trap air bubbles.

>>Seams must be without gaps and any excess adhesive should be removed as work proceeds.

>>The vinyl sheet is then rolled with a 68kg articulated floor roller in the short direction first, then the long, and the rolling repeated between one and four hours later.

ESD Vinyl Tiles

Polyflor ESD vinyl tiles are installed by the same method as standard vinyl tiles – the single stick method. The grid layout for static control tiles is the same as for sheet vinyl, as described previously.

ESD vinyl tiles must always be heat welded.

SPECIAL PRECAUTIONS

Special precautions must be taken with the following products:

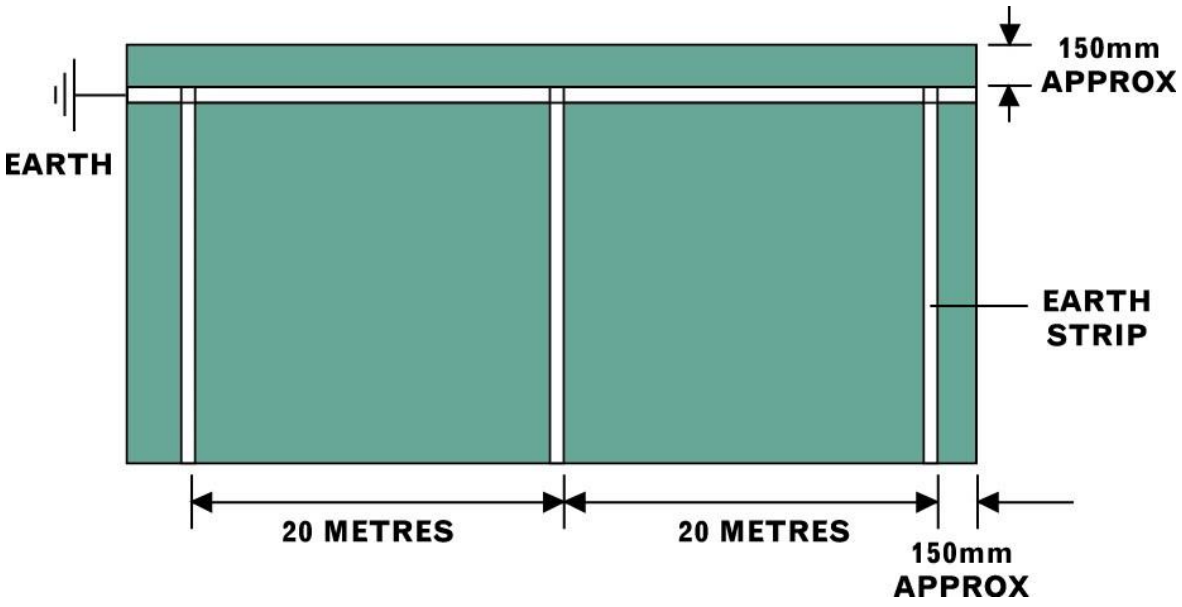
Electrostatic Conductive (EC) Floor coverings

Pipes or metal projections such as metal gullies, door spring plates etc. must be insulated from the EC floor covering and free from conductive adhesive. The following method of installation is recommended:

>>Cut the EC floor covering 50mm short of any pipe or metal fixture.

>>This infill area should be laid with a suitably coloured standard Polyflor sheet vinyl, adhered with a non-conductive adhesive.

>>This infill piece should then be welded to the ESD floor covering with a standard weld rod.



MAINTENANCE:

INITIAL CONSTRUCTION CLEAN

• Remove all loose debris

• Ensure that all traces of adhesive are removed from the surface of the floor covering

• Mop sweep or vacuum to remove dust and grit

• Damp mop with a neutral detergent

• If required, dry buff with a 1000 rpm plus rotary machine fitted with a suitable clean pad

ROUTINE MAINTENANCE

The following recommendations are provided as a guideline, and the frequency can be changed to optimise the appearance. Assess daily the appearance of the floor. Undertake the following as required.

• Mop sweep or vacuum to remove dust and loose dirt

• As required, spot mop to remove stubborn marks, with a Polyflor approved neutral or ESD cleanser

• Light scuffing - dry buff with a 1000 rpm plus rotary machine fitted with a suitable clean pad.

• Heavier scuffing – spray buff using a Polyflor approved ESD / Conductive floor cleaner and 1000 rpm plus rotary machine fitted with a suitable clean pad

• If the floor has dirt build–up, machine scrub with a scrubber dryer (approx. 165 rpm) fitted with a suitable clean pad, using a Polyflor approved neutral or alkaline cleanser, as appropriate.

• Rinse thoroughly and allow to dry.

• Dry buff to restore finish

• Where there is no mechanical means of maintaining the floor, a Polyflor approved conductive polish or ESD sealant should be applied following installation.

APPLICATION OF A FLOOR DRESSING

Normal commercially available polishes should not be applied to Polyflor ESD products, as they will inhibit the conductive properties.

• Polishes described as 'antistatic 'are classified by a different standard from that of the floor covering and should be treated as a standard polish in static control terms and, consequently, should not be applied.

• Conductive polishes / ESD sealants which are approved by Polyflor can be applied in strict accordance with the manufacturer's instructions. Prior to application of a floor dressing, ensure that the floor is thoroughly scrubbed. This will ensure that there is a good key between the dressing and the surface of the flooring. Always discuss with our Technical Support staff before applying a conductive polish / ESD sealant.

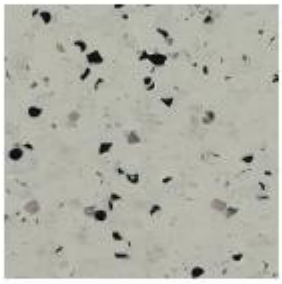
The maintenance regime requires the installation of an effective barrier matting system

POLYFLOR™
COVERING THE WORLD

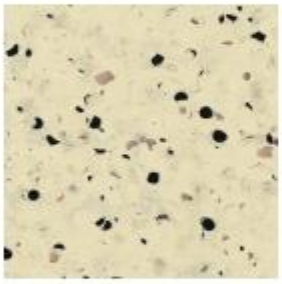
EC

ESD

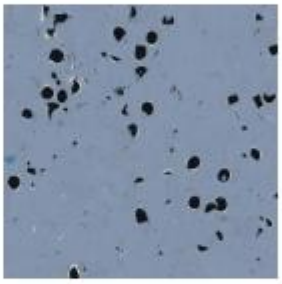
OHMEGA EC



Thunderstorm **6002**
NCS S 2500-N
wh 6002
LRV 46.3

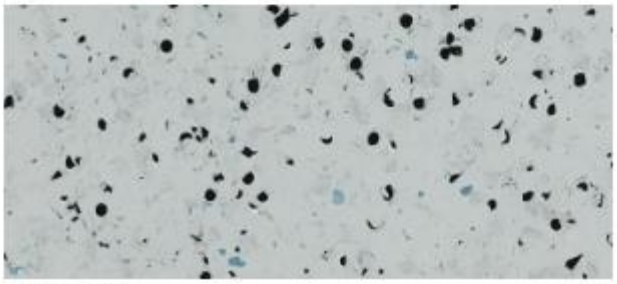


Warm Haze **6003**
NCS S 1005-Y30R
wh 6003
LRV 65.4



Tempest **6004**
NCS S 3020-R80B
wh 6004
LRV 33.1

Frosty Glen **6005**
NCS S 1500-N
wh 9854
LRV 85.3



Morning Dew **6006**
NCS S 2005-R70B
wh 6006
LRV 52.3

POLYFLOR EC

Black/Grey **8990**
NCS S 7502-B
wh 8640
LRV 6.4

CONDUCTIVE ROF

Black **5980**
wh 8640

wh = weld rod NCS = Natural Colour System LRV = Light Reflectance Value

100% RECYCLABLE
25% RECYCLED MATERIAL

A+ BRE GENERIC ENVIRONMENTAL RATING

Refer to BRE Global ratings on www.greenbooklive.com

POLYFLOR
SOUTH AFRICA

EC

Polyflor Electrostatic Conductive products are recommended for use in electronics manufacturing (wafer fabrication; product assembly; inspection and storage); laboratories and cleanrooms, also healthcare facilities, including operating theatres; anaesthetising areas; intensive-care units and radiology departments. Conductive ROF is for use in ordnance factories, manufacturing areas and where explosive and flammable agents are stored.

Gauge	EN 428/ISO 24346	2.0mm
Roll Size	EN 426/ISO 24341	2m x 20m = 40m²
Tile Size: Polyflor EC	EN 427/ISO 24342	608mm x 608mm = 5.17m²
Total Weight	EN 430/ISO 23997	OHMega EC: 3060g/m² Polyflor EC: 3500g/m² Conductive ROF: 3300g/m²
General Performance	EN 649/EN ISO 10581 ASTM F1913 ASTM F1700	Conforms Conforms Polyflor EC Tile: Conforms
Use Area	EN 685/ISO 10874	
Reaction to Fire	EN 13501 ASTM E648	Class Bfl-S1 Class I
Abrasion Resistance	EN 660-2 EN ISO 10581	Polyflor EC & Conductive ROF: Group M Polyflor EC & Conductive ROF: Type II
	EN 660-2 EN ISO 10581	OHMega EC: Group P OHMega EC: Type I
Slip Resistance	EN 13893 DIN 51130	Class DS OHMega EC: R9
Electrical Behaviour: OHMega EC	EN 1081 Rt/Rp ESD S.7.1 BS EN/IEC 61340-4-1 BS EN/IEC 61340-4-5	10^6 - 1 x 10^9 ohms ** < 10^9 ohms < 10^9 ohms < 100v *
Electrical Behaviour: Polyflor EC	EN 1081 Rt/Rp ESD S.7.1 BS EN/IEC 61340-4-1 BS EN/IEC 61340-4-5	5 x 10^4 - 1 x 10^9 ohms 5 x 10^4 - 1 x 10^9 ohms 5 x 10^4 - 1 x 10^9 ohms <100v *
Electrical Behaviour: Conductive ROF	EN 1081 Rt/Rp BS 2050 JSP 482	<5 x 10^4 ohms <5 x 10^4 ohms <5 x 10^4 ohms
	Polyflor ROF flooring for explosive handling areas, no protection from short circuit on a 240/250 volt mains.	
Electrical Behaviour (body voltage)	EN 1815	<2kv

Environmentally Preferable Flooring - Homogenous vinyl flooring achieves a generic BRE A+/A rating in the Green Guide to Specification, for contract applications. Polyflor ESD is 100% recyclable and contains an average 25% recycled material. Recyclable via the Recofloor scheme. Visit www.polyflor.com/sustainability.

Hygiene - All Polyflor commercial sheet vinyl ranges provide a continuous, impervious and hygienic flooring solution which can be confidently cleaned in accordance with recommended maintenance procedures and approved maintenance products. The implementation of an effective cleaning regime is the most important defence against infection.

Polyflor homogeneous PUR and Polysafe flooring ranges are compatible with the most commonly used alcohol based hand gels. Some alcohol based hand gels contain a high concentration of ethanol and to discuss their compatibility with Polyflor ESD ranges, contact Customer Technical Services.
Access Panel applications require specific fitting instructions, to ensure product performance and achievement of electrical results outlined.
For information regarding handling and installation, adhesives, maintenance, applications, chemical resistance and product warranty, consult **Polyflor Customer Technical Services on +44 (0)161 767 1912, or email tech@polyflor.com.**
The data presented is correct at the time of printing. For latest information, please visit our website **polyflor.com.**
Decoration and shade may vary slightly from the samples shown.

* Result when tested with conductive shoes, tested according to IEC61340-4-3 and compliant to the requirements of IEC 61340-5-1
** Tested at 100V

100% RECYCLABLE
25% RECYCLED MATERIAL

CE
EN 14041

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April 2019 0915/23