R 701 CP

Conductive PU Flooring

DESCRIPTION

R 701 CP is a Conductive Polyurethane self-levelling flooring System designed for situations where high degree of chemical and abrasion resistance is required along with electro-static conductive properties for locations where the charges are required to quickly flow to the ground.

USES

- Electronic & component assembly units
- Hospital Operation Theatres
- Electronic & Telecommunication
- Automotive & Aerospace
- Pharmaceutical labs
- Computer rooms, etc.,

FEATURES

- Conductive: >2.5X10^4 < 1X10^{6}Ω
- Hygienic & seamless: easy to clean and maintain
- Good chemical & abrasion resistance
- Supplied in pre-measured packs for ease of mixing and consistency at site
- Available in a selected range of colours

Physical Properties

R 701 CP

Finish	Matt
Mixed density	1.85 g/cc
Pot life	15 - 20 minutes
Light traffic Full traffic Full cure	24 hours 48 hours 7 days
Surface resistivity	>2.5X10^4 < 1X10^{6}Ω
Bond strength to concrete ASTM D-4541	>1.5 N/mm^2
Shore D Hardness ASTM D-2240	> 75
Compressive strength BS 6319 Part 2	> 40 N/mm^2
Flexural strength BS 6319 Part 3	> 15 N/mm^2
Tensile strength BS 6319 Part 7	> 6 N/mm^2
Service temperatures	-25°C to +60°C
Temperatures resistant	+5°C to +60°C
Abrasion resistance	Classified 'Special Duty' under BS 8204: Part 2:2002(9)

COVERAGE ESTIMATES

Pack Size **18.5 kg Kit**

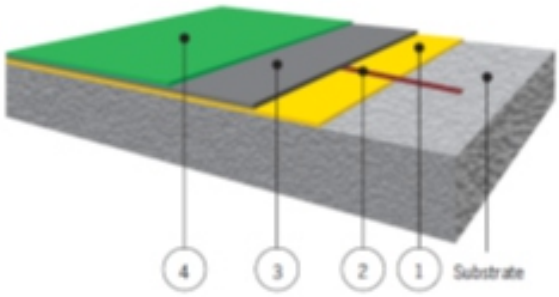
Part A 2.45 kg
Part B 3.1 kg
Part C 12.7 kg
Part D 0.25 kg
Part E 5.40 gms

Coverage: Approx. 5 m^2/kit @ 2 mm thickness

APPLICATION INSTRUCTION

Installation of Conductive Polyurethane Flooring System should be carried out only by an approved applicator of ARDEX ENDURA.

Layer	Build-up	Product	Product Description
1	Primer	R 3 E / R 9 CE	Solvent free, epoxy primer
2	Conductive Middle Coat (1st coat)	R 625 CE Conductive Coating	Conductive middle coat for Antistatic Flooring Systems
3	Conductive Grid	Copper Tape	Self-adhesive, conductive copper tape
4	Conductive Middle Coat (2nd coat)	R 625 CE Conductive Coating	Conductive middle Conductive Coating coat for Antistatic Flooring Systems
5	Topping	R 701 CP	Conductive PU based Self Levelling Topping



Surface Preparation

The substrate should have a surface tensile strength of at least 1.5 N/mm^2 .

New concrete floors must be allowed to cure for at least 28 days and shall have an effective damp-proof membrane below to

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prevent rising dampness. The concrete surface should be mechanically prepared, either by scarifying, scabbling, grinding or contained shot blasting equipment or similar, and be vacuumed clean. Dust and other debris should be removed using vacuum equipment.

Priming (R 3 E or R 9CE)

All areas to be treated with Conductive PU flooring must first be primed with one or more coats depending upon the condition and porosity of the concrete substrate. High porosity substrates may be revealed after preparation and will be evident by their rapid suction and absorption. Allow to cure for 8 hours.

R 625 CE PRIMER Conductive Middle Coat

Use a mechanical mixer and mix the two parts for one minute so that it forms a homogeneous mix. Do not over mix as it will result in air entrainment and also the mixed material may get heated up.

Apply first coat by roller on the primed surface to get a total thickness of 90 - 100 microns. Allow 6 - 8 hours (depending on temperature and humidity) before installation of self-adhesive copper tape.

Conductive Grid

Install self-adhesive copper tape of 12 - 20mm width and 70 - 100 microns thick (e.g. 3M scotch) maintaining 150 mm from the perimeters. A further grid of the conductive tape is fixed within this area at 3m centres. The applied tape matrix should be secure and fully bonded to a confirmed earth point. There should be an earthing point for every 100m^2 floor area. Floors of less than 100m^2 should have two earthing points.

Apply second coat of R 625 CE PRIMER only over the copper strip

Conductive Coating at 70- 100 microns thickness.

Topping (R 701 CP)

The individual contents of PART A & B of R 701 CP should be thoroughly stirred before being mixed together. Ensure the mixing vessel is dry and pour in the entire contents of the Part A (Resin), add Part E (Carbon Fibre) and mix for 1-2 minutes with a spiral mixing paddle in a slow speed drill. Add Part D (Pigment paste), mix thoroughly for another minute. Then add Part B (Hardener) and mix for further 1-2 minutes. Finally add Part C (Filler) slowly and mix for 2-3 minutes until a consistent homogeneous mix is achieved.

Mix should be poured onto the dried Conductive Middle Coat and spread using a trowel to achieve the desired thickness. Immediately, the surface should be gently rolled with a spiked roller in order to release any entrapped air from the mix and also to blend out any trowel marks. The work area should be protected during the installation process and during the initial curing time to ensure that no debris can contaminate the surface, as this will lead to unwanted blemishes in the hardened, cured surface. Allow to cure for 24 hours.

Note

R 701 CP should only be applied at temperature above 15°C and where the atmospheric relative humidity (RH) is 85% or below.
Once the mixed material has exceeded its pot life, the viscosity and the characteristics of the product will change and any unused product should be discarded at this time.

CLEANING

R 701 CP can be removed from tools and equipment by using a suitable thinner like xylene immediately after use. Any hardened material will need to be removed mechanically.

STORAGE AND SHELF LIFE

R 701 CP has a shelf life of 6 months in the original unopened containers. The product should be kept in a cool, well ventilated area away from heat, direct sunlight and sources of heat.

PRECAUTIONS

During mixing and application the following precautions should be observed: Ensure adequate ventilation and avoid contact of the material with the eyes, nasal passages, mouth and unprotected skin. Avoid contact with the hands by wearing protective gloves and by using, if necessary, a suitable barrier cream. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. In case of splashes on the skin, wash immediately with plenty of soap and water. Prolonged contact with the skin should be avoided, especially where the user has an allergic reaction to resin-based materials. Always wear gloves and eye/face protection as necessary. Observe personal hygiene, particularly washing the hands after work has been completed or at any interruption whilst work is in progress. Care should be taken when removing gloves to avoid contaminating the insides. In case of accidents seek medical advice.

DISPOSAL/SPILLAGE

Spillage of any of the product components should be absorbed onto sand or other inert materials and transferred to a suitable disposable vessel. Disposal of such spillage or empty packaging should be in accordance with local waste disposal authority regulations.

For further information please refer to the Material Safety Data Sheet.

CONDITIONS OF SALE

Sold subject to the Company's conditions of sale which are available on request.

NOTE

The information supplied in this datasheet is based upon extensive experience and is given in good faith in order to help you. Our Company policy is one of continuous Research and Development; we therefore reserve the right to update this information at any time without prior notice. We also guarantee the consistent high quality of our products. However, as we have no control over site conditions or the execution of the work, we accept no liability for any loss or damage which may arise as a result thereof.

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