



TSIRCON CO LTD

MANUFACTURERS & TRADERS
OF BUILDING MATERIALS

Ημ. έκδοσης 3/2007

TSIRCO-FLOOR PU SL

Polyurethane self-levelling industrial floor topping with crack-bridging properties

Product: The system comprises of a base material, 2 pack polyurethane solvent free and a PU coating to give UV stability and improved abrasion resistance.

Purpose: To produce a decorative, protective, chemically resistant, flexible, self-levelling floor topping, especially suitable for wide temperature variations.

Primers (if needed): 1 coat TSIRCO-RES 481 or TSIRCO-RES 101. Depending on substrate condition consumption is approximately 2,5-5,0m²/kg/coat.

TSIRCO-FLOOR PU SL: Consumption of TSIRCO-FLOOR PU SL material is 2,0-2,5kg/m² to achieve a thickness of 2mm.

Introduction: TSIRCO-FLOOR PU SL is a material used on a variety of industrial floors where the need of good appearance and other outstanding properties are required. The TSIRCO-FLOOR PU SL System offers:

- ❖ Both toughness and flexibility.
- ❖ Good adhesion to the substrate.
- ❖ High abrasion resistance.
- ❖ Good seamless appearance.
- ❖ Hygienic floors.
- ❖ Durability.
- ❖ Good resistance to diluted acids and chemicals.
- ❖ Cures well at low temperature.

Page 1

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Typical Application: Because of these outstanding properties of TSIRCO-FLOOR PU SL SYSTEM, areas of application include:

- ❖ Laboratories.
- ❖ Corridors.
- ❖ Hospital floors.
- ❖ Showrooms.
- ❖ Ship's decks.
- ❖ Tanks.
- ❖ e.t.c.

How to use:

1. Preparation

Substrate to be treated must be clean and free from any loose particles, dust, oil, grease and other contaminants. Porous substrates, including concrete and cement floors, must be tested for their moisture content before application. This can be done using a moisture measuring equipment. The substrate should not contain more than 3,5% moisture, otherwise if moisture is entrapped, a subsequent built-up of water vapour pressure under the topping may occur, which may cause loss of adhesion and blistering. In such cases the floor should be allowed to dry and a primer such as TSIRCO-RES 481 or TSIRCO RES 101 should be used. Major irregularities of the substrate or shrinkage cracks of the substrate should be made good with the use of TSIRCO-SPECCEM, TSIRCO-RES 201 or TSIRCO-RES 341 (consult the Technical Department of the Company). It is best to pre-treat the substrates with grid blasting. In cases where this is not possible, cleaning with acid-edging should be used.

2. Priming

The substrate to be treated may be primed with suitable primer. Depending on the condition of the substrate a choice between TSIRCO-RES 481 and TSIRCO-RES 101, should be made. Priming helps to make the surface firmer and at the same time it prevents blisters and craters from developing due to air rising from the pores of the substrate. In cases of relatively damp substrate the TSIRCO-RES 481 is recommended as a primer.



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3. Application

TSIRCO-FLOOR PU SL should be applied at least 24 hours after the application of the primer or as soon as the material has dried out. TSIRCO-FLOOR PU SL consists of two components. These two components are mixed by a suitable mechanical stirrer into a metal container. When stirring, care must be taken to select a slow speed stirrer where possible and do not switch it on until the stirring device is fully immersed in the material in order to avoid entrapped air in the mixture. The same applies, when switching it off. Pot life is 30-40 minutes at room temperature. After levelling a spiked roller must be used to remove entrapped air. The operator should wear spiked shoes to enable walking over the freshly applied topping to aid application.

Finish Coat: After the elapse of 24 hours TSIRCO-PU PAINT must be applied by brush or roller in one or two coats to improve the chemical and abrasion resistance properties.

Mechanical Properties: Mechanical properties of use-cured composition are shown on the following table:

TEST	TEST SPECIFICATION DIN	
Tensile test strength (MPa)	53 504	5
Elongation at break %	53 504	205
Modulus of elasticity tensile test, (MPa)	53 504	4
Tear propagation resistance KN/m	53 515	8
Hardness, Shore A/D	53 505	55/12

Handling Precautions: Whenever handling TSIRCO-FLOOR PU SL SYSTEM, safety goggles and protective gloves should be worn. If in spite of these precautions, splashes come in contact with the eyes, rinse with plenty of water and consult a doctor.

Storage Life: At least 6 months if kept in the original sealed containers in a cool place away from direct sunlight or moisture.