### Betonipallas Oy/Umbra Colour Patination - Preparation Guidance Note

Umbra colour patination is a chemical colouring process through which dye-forming reagents are absorbed into the surface of the concrete.

The substances react with the cement and form a vibrant coloured surface that resembles rust or oxidised iron. The colour does not mask the concrete's own mineral structure.

The age of the concrete is irrelevant, but in order for the materials to be absorbed into the concrete, the cement adhesive must be removed carefully from the surface, for example by sandblasting or by means of surface retardants or acid washing.

# **Requirements for work**

Patination is demanding and should only be carried out by trained personnel. Patina agents are applied by spraying or rolling onto a hardened and well-dried concrete surface.

The number of colouring applications depends on the desired colour tone. Normally three treatments are required. Each application needs to dry completely before the next treatment. The depth of the patination layers depends on the absorbency of the concrete, the moisture content of the surface and the air temperature and humidity.

## Requirements for concrete surface

The concrete surface must be free of dust and dry enough to absorb the patina. The key to the success of Umbra patination is the proper removal of the surface glue. Removal methods can be advised and carried out in the factory or on site.

Care should be taken to achieve the best possible surface. Samples of good surface finish can be supplied by Betonipallas

### Repairing damaged concrete

Care should be taken with the concrete elements to avoid damage in handling, transportation and installation. Repairs should be made using the recommended material (Ardex B14). Repairs made using material with glue will resist the Umbra treatment.

Repairs are rarely the same colour or texture as the surrounding prepared concrete surface. This can result in some difference in colour/tone after Umbra treatment.

### Protections on site

Any surrounding surfaces windows/doors of any material should be protected from umbra with plastic sheeting, cardboard or plywood.

#### Working temperature

Permanently above 8 °C.

### Contact

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