



**FINE CONCRETE DESIGN**



## 2 | Introduction

### Fine concrete

Techniques using construction materials like cement and concrete have their roots in the distant past. As a result of technical developments, the conditions for modern styling and designing have been established. Today, concrete is experiencing a real renaissance and is regarded as a durable construction material having an increasingly fine structure and attractive look. Accordingly, in addition to statics and load parameters, concrete increasingly needs to meet design requirements: large monolithic surfaces, slim lines, sharp edges, non-porous closed surfaces, just to name a few examples.

### History

The processing techniques of stone and terrazzo floors have been known for several thousand years. The oldest archaeological evidence of terrazzo dates back to the Neolithic period, but there is also evidence of smooth cement floors installed in ancient Egypt. Terrazzo floors enjoyed an awakening during the Renaissance era in Italy, just think of the palaces in Venice, where terrazzo was one of the most widespread flooring method, from where the name "Terrazzo alla veneziana" is derived. As a result of building a number of churches in the Mediterranean region, terrazzo quickly spread to other parts of Europe. Terrazzo was mostly used as load bearing, functional and decorative element of public buildings.

Hand made design floors experienced a boom in the second half of the 19th century. They were used in residential and public buildings, in churches and at railway stations. In many cases, the surface was decorated with different patterns or inscriptions of mosaic stones. The coloured, bright polished floors enjoyed great popularity, not least because of their easy handling and high resistance to wear and tear.



### Techniques

Locally installed floors give an accurate account of the diversity of construction materials (lime, cement, granite, quartz) available in the region in question. Classic terrazzo and fine concrete floors are typically installed on site, using a dry mixture of binders and various aggregates.

After installation and compaction, the mixture is ground in several steps, depending on shine and evenness requirements. Finally, the surface is sealed using an impregnation or lacquer to ensure impermeability to liquids and to improve wear resistance.

The appearance of the floor can be varied over a wide range by mixing in coloured binder and coloured aggregates.

Nevertheless, look and durability stand or fall till today by the care of the craftsman responsible for the installation.

### Design

Main features of fine concrete include minimal design and unprocessed homogeneous surfaces. It can be applied in a wide variety, ranging from wall panels through garden furniture to kitchen counters. The key advantages of concrete as a modern construction material lies in durability and easy formability.

Thanks to the success story of glass fibre concrete, the results of concrete applications in Hungary and future potentials thereof have become known to a wider public. Fiberglass concrete, pixel concrete, 3D panels, design elements are only a few examples of the huge potential lying in creative applications of concrete.



## **CONCRETE**

monolithic floors

## **TERRAZZO**

filled with minerals

## **CIRÉ-CONCRETE**

wall / facade

## **FINE CONCRETE**

design-elements



## **INDUSTRIAL**

mottled appearance  
smoothed surface  
marble-like veins

### **MC-Top Industry**

Design screed binder /  
earth-moist mixed with  
sand on site

Grinding: with fine  
grinding disks

Surface protection: thin  
film-forming matt / glossy  
lacquer

**Thickness: 30-50 mm**



**BE SURE. BUILD SURE.**













### **“SALT AND PEPPER”**

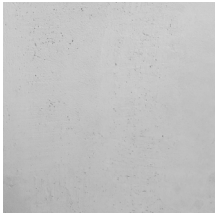
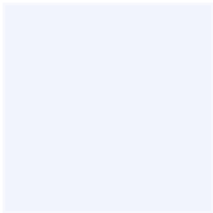
mineral (quartz) character  
mineral natural colours  
polished surface  
granite-like veins

### **MC-Top Floor**

self-levelling bonded screeds /  
polishable  
mixed with compulsory mixer /  
poured in one layer  
Grinding: with planetary grinder  
Surface protection: film-forming  
matt / glossy lacquer

**Thickness: 10 -20 mm**









## **TERRAZZO**

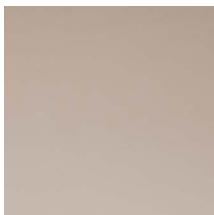
Natural stone character  
polished surface  
variable grain size / colour

## **MC-Top Floor**

Self-levelling / pourable  
bonded screeds  
mixed with compulsory  
mixer / poured in one layer  
Grinding: with planetary  
grinder  
Surface protection: film-  
forming matt / glossy  
lacquer

**Thickness: 10-25 mm**













## **CIRÉ-CONCRETE**

Industrial optics  
for floors / walls  
polished surface  
matt / glossy protective lacquer

## **MC-Top MINI**

earth-moist, thin screed  
mixed with compulsory mixer /  
double-layered

Grinding: light single-disc grinding  
machine, layer by layer

Surface protection: film-forming  
matt / glossy lacquer

**Thickness: 2\*3-4 mm**



BE SURE. BUILD SURE.









Kaza International



## LITRACON

Light-Transmitting Concrete  
an invention from Hungary

The transparent elements are made in  
the concrete factory of the inventor Áron  
Losonczy.

The transparency of the concrete is  
ensured by glass fibres or pixel units.







## FINE CONCRETE

unique shape design  
natural concrete surface

### MC-Top FIX

high-strength cast mortar  
grain size: 4 mm  
poured into special moulds  
ground / polished

Surface protection: thin film-forming  
matt / glossy lacquer

Special colours through  
pigmentation



Anita Boldog ab.concrete





S39 Beton workshop

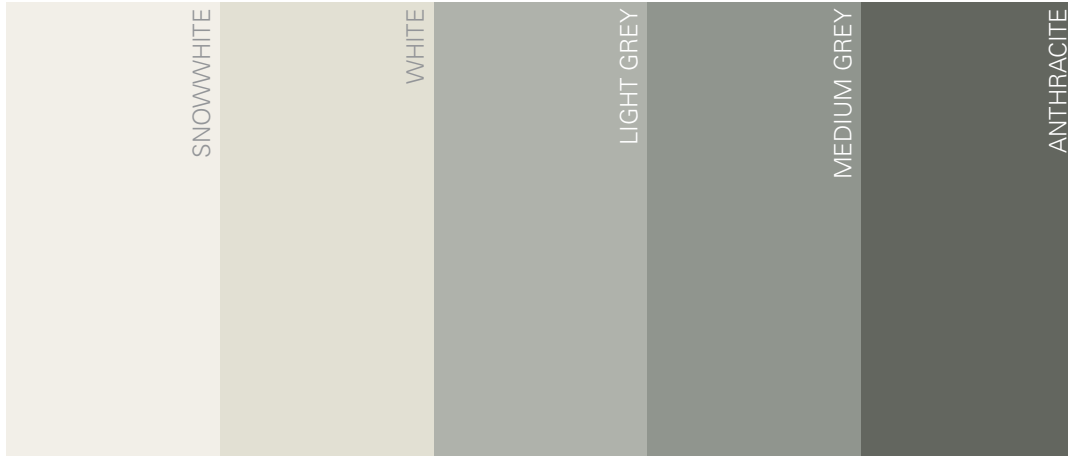


S39 Beton workshop















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