

3D DIGITAL STRUCTURE TECHNOLOGY

WITH GLUE
AND GRIT

This Unilin patented production technology for ceramic tiles **combines digital printing of graphic patterns with digital 3D material** structure.

The digital relief is created by **applying a glue and a grit**. This type of digital structuring achieves an extraordinary realistic and natural effect, with **embossing deeper than ever before**.

The textures of the ceramic tiles are **easily synchronized** with multiple graphic patterns and colored designs. The glue and grit enables more **accurate structure**.

UNILIN PATENT PORTFOLIO

We license out our knowhow to create more **innovative products**. By licensing out our patented technologies, we support the implementation of new production processes, improved efficiency and better products. Worldwide.

Our patent portfolio for ceramics covers different technologies for **improving the digital structure and design**.



PATENT PORTFOLIO SINCE 2010

BR 11 2012 021883-2

CA 2,791,216 RU 2 561 327

EP2542426 CN 102834275

US 10,239,346 CA 2,984,272

UNILIN'S UNPARALLELED GLUE AND GRIT SOLUTION

Unilin's glue and grit production method of creating relief in ceramic tiles creates elevations on the panel through digital printing. This method obtains deeper texturing than the existing solution. The pre-existing pattern on the panel and the digital structuring enable the embossed in register result.

The **glue is digitally printed** in a desired pattern on the substrate of the tile. A **grit** is then applied across the whole tile and **sticks to the glue, creating the texture on the tile**. A vacuum cleaner removes the extra powder.



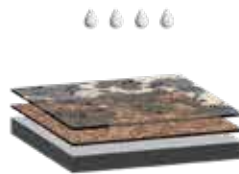
Preparation of substrate



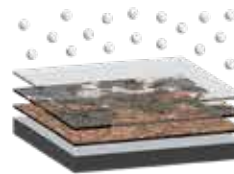
Printing of the décor



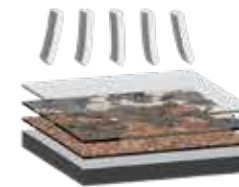
Printing of the glue



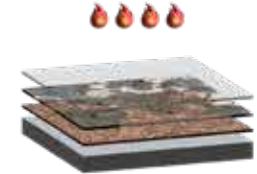
The grit is spread on the tile. The powder sticks to the glue



A vacuum removes the powder that does not stick to the glue



Firing in the kiln



WHY CHOOSE 3D DIGITAL STRUCTURING?



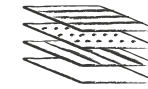
REAL TOUCH & FEEL



GREAT TECHNICAL PERFORMANCE



AUTHENTIC DESIGN & TEXTURE



DEEPER TEXTURING



PATENTED SINCE 2010



AFFORDABLE SOLUTION COMPARED
TO MECHANICAL STRUCTURING



UNLIMITED FLEXIBILITY