





Primary color and surface card



# Primary color and surface card

01.1

# Natural white

Tel: (01) 293 8951

This color shade is part of the standard color material collection upon request the standard shade can be combined with various pigments as required to achieve a completely unique color design.



**Designation** S 01.1

Name of the color shade Natural white (01.1)

Surface Smooth (S)



**Designation** F 01.1

Name of the color shade Natural white (01.1)

**Surface** Fine structure (F)



**Designation** P 01.1

Name of the color shade Natural white (01.1)

Surface Gross structure (P)

# Concrete grey

This color shade is part of the standard color material collection upon request the standard shade can be combined with various pigments as required to achieve a completely unique color design.



Designation S 02.1

Name of the color shade

Surface

Concrete grey (02.1)

Smooth (S)



Designation

Name of the color shade

Surface

F 02.1

Concrete grey (02.1)

Fine structure (F)



Designation

Name of the color shade

Surface

P 02.1

Concrete grey (02.1)

Gross structure (P)

Name

# Velvety grey



Tel: (01) 293 8951

This color shade is part of the standard color material collection upon request the standard shade can be combined with various pigments as required to achieve a completely unique color design.



**Designation** S 03.1

Name of the color shade

Velvety grey (03.1)

Surface

Smooth (S)



Designation

F 03.1

Name of the color shade

Velvety grey (03.1)

Surface

Fine structure (F)



Designation

P 03.1

Name of the color shade

Velvety grey (03.1)

Surface

Gross structure (P)

# 4.1 Anthracite grey

Tel: (01) 293 8951

This color shade is part of the standard color material collection upon request the standard shade can be combined with various pigments as required to achieve a completely unique color design.



Designation S 04.1

Name of the color shade Anthracite grey (04.1)

Surface Smooth (S)



Designation F 04.1

Name of the color shade Anthracite grey (04.1)

Surface Fine structure (F)



Designation P 04.1

Name of the color shade Anthracite grey (04.1)

Surface Gross structure (P) 05.1

# Graphite grey



This color shade is part of the standard color material collection upon request the standard shade can be combined with various pigments



as required to achieve a completely unique color design.

**Designation** S 05.1

Name of the color shade Graphite grey (05.1)

Surface Smooth (S)



**Designation** F 05.1

Name of the color shade Graphite grey (05.1)

**Surface** Fine structure (F)



**Designation** P 05.1

Name of the color shade Graphite grey (05.1)

Surface Gross structure (P)



Designation S 06.1

Name of the color shade Ivory (06.1)

Surface Smooth (S)



Designation F 06.1

Name of the color shade Ivory (06.1)

Surface Fine structure (F)



Designation

Name of the color shade Ivory (06.1)

Surface Gross structure (P)

P 06.1



# 7.1 Sandstone

This color shade is part of the standard color material collection upon request the standard shade can be combined with various pigments as required to achieve a completely unique color design.



Designation S 07.1

Name of the color shade Sandstone (07.1)

Surface Smooth (S)



Designation F 07.1

Name of the color shade Sandstone (07.1)

Surface Fine structure (F)



Designation P 07.1

Sandstone (07.1) Name of the color shade

Surface Gross structure (P)

)8.1 Brick red

This color shade is part of the standard color material collection upon request the standard shade can be combined with various pigments as required to achieve a completely unique color design.



Designation

S 08.1

Name of the color shade

Brick red (08.1)

Surface

Smooth (S)



Designation

F 08.1

Name of the color shade

Brick red (08.1)

Surface

Fine structure (F)



Designation

P 08.1

Name of the color shade

Brick red (08.1)

Surface

Gross structure (P)

Tel: (01) 293 8951

# 09.1 Malachite green

This color shade is part of the standard color material collection upon request the standard shade can be combined with various pigments as required to achieve a completely unique color design.



**Designation** S 09.1

Name of the color shade Malachite green (09.1)

Surface Smooth (S)



**Designation** F 09.1

Name of the color shade Malachite green (09.1)

**Surface** Fine structure (F)



**Designation** P 09.1

Name of the color shade Malachite green (09.1)

Surface Gross structure (P)

## 10.1 Travertine brown

Tel: (01) 293 8951

This color shade is part of the standard color material collection upon request the standard shade can be combined with various pigments as required to achieve a completely unique color design.



Designation S 010.1

Name of the color shade

Surface

Travertine brown (010.1)

Smooth (S)



Designation

Name of the color shade

Surface

F 010.1

Travertine brown (010.1)

Fine structure (F)



Designation

Name of the color shade

Surface

P 010.1

Travertine brown (010.1)

Gross structure (P)

# 011.1 Slate brown

Tel: (01) 293 8951

This color shade is part of the standard color material collection upon request the standard shade can be combined with various pigments as required to achieve a completely unique color design.



Designation S 011.1

Name of the color shade Slate brown (011.1)

Surface Smooth (S)



Designation F 011.1

Name of the color shade Slate brown (011.1)

Surface Fine structure (F)



Designation

Slate brown (011.1) Name of the color shade

P 011.1

Surface Gross structure (P)



### 1.5 Sandblasted surface

Exposed aggregate surface is specially coated exposed surface of the Polycon material. It is a chemical process whereby a high aesthetic assessed to the open surface structure, that its purely natural character enhancing the visual uniqueness surface.

The process of chemical "sanding" of the structure surface gives the facade tiles unique visual property. Their originality lies in the fact that the surface of the tiles is not inherently seamlessly unified and the same. Each individual plate retains its uniqueness due to the wide spectrum of visual grading layers. This is determined by using the wide framework of material components. The whole production process is completely unified and every single plate passes through an identical manufacturing process. Therefore, the final design of the surface structure is given only due to controlled erosion process of board surface structure. Quite unique surface of each plate is the result of a chemical process. In the context of the application it creates in each facade the unique character and natural appearance. Now this is quite intentionally sought and used by architects for its uniqueness and unrepeatability. The spectrum of surface heterogeneity and diversity of panel boards within this surface modification is one of the basic characteristics of glass-fiber reinforced concrete material. Therefore, this surface structure is chosen as the required solution.

This type of treatment is designed primarily for flat slabs and tiles due to technological progress driven erosion surface structures, because there can be the irregularities in the visible unity of the form elements. At the corner elements or shapes demanding elements (where different areas are interconnected) the scrubbed of surface structures can exhibit with an increased separation of the material in these related areas, corners and edges.

Due to the open structure in the use of the hydrophobic coating is recommended. This significantly reduces the possibility of water absorption in the visible structure of the material and thus contributes to the maintenance of his enduring aesthetic values.



### 1.6 Hydrophobization, antigrafiti

### Hydrophobization

Resistance of the surface structures of glass-fiber reinforced concrete Polycon products can be increased using the hydrophobization to external influences such as water, dirt, grease, frost, chemical and deicing compositions. Correct use of the appropriate type hydrophobization can easily achieve better functional and useful properties of glass-fiber reinforced concrete cladding, especially with regard to its long-term use under technical aesthetic requirements. Hydrophobized products have substantially reduced water absorption of the surface layers and the associated effects.

Hydrophobization of surfaces is functional method for longer life and high long-term serviceability. Hydrophobization basic principle is to increase the surface tension of the material and increasing the wetting (contact) angle of water, which is achieved by using a hydrophobic substance on the functional surface of the material pores. Within the technical description the principle of the hydrophobicization it can be formulated as a change in the physicochemical properties of the treated material, which substantially increases at the interface of solid and gaseous environment the so-called the wetting (contact) angle for water. Water easily penetrates into the pores of building materials due to its large surface tension and small wetting angle. However, if we increase the contact angle of water, it cannot wet the surface and penetrate into the surface much more difficult. The hydrophobic substance on the surface of the material must be very thin (invisible to the eye), to almost not to diminish diameter of material pores, thus, in order to avoid elimination half throughput, which must be maintained (WARNING – Important the water-repellency is not to be confused with waterproofing!). Water cannot create a continuous surface on hydrophobized surface thus surface is not wetted with water and water easily flows in the form of beads.

Lifetime of hydrophobizing the on the material surface is directly depending on the kind and type of the structure, especially on the specific type of environment in which the products are used, it can takt to 10 years.





### 1.6 Hydrophobization, antigrafiti

### Antigrafiti

It is in the general sense of the type of creative expression working in public space technology application of paint, often in the form of a spray or markers. The most common form is spraying of graffiti spray paint on surfaces of various materials (concrete, brick, glass, ...).

Sprays – this kind of paint containing binder, usually an organic resin, and the solid color, usually an inorganic pigment.

Markers – are useful mostly on smooth surfaces (smooth cut or polished stone, metal, glass, plastics, etc.). They comprise a solution of an organic dye, which is applied to the pen tip described surface. If they are to be removed with water colors, colored markers liquid still contains dissolved organic binder.

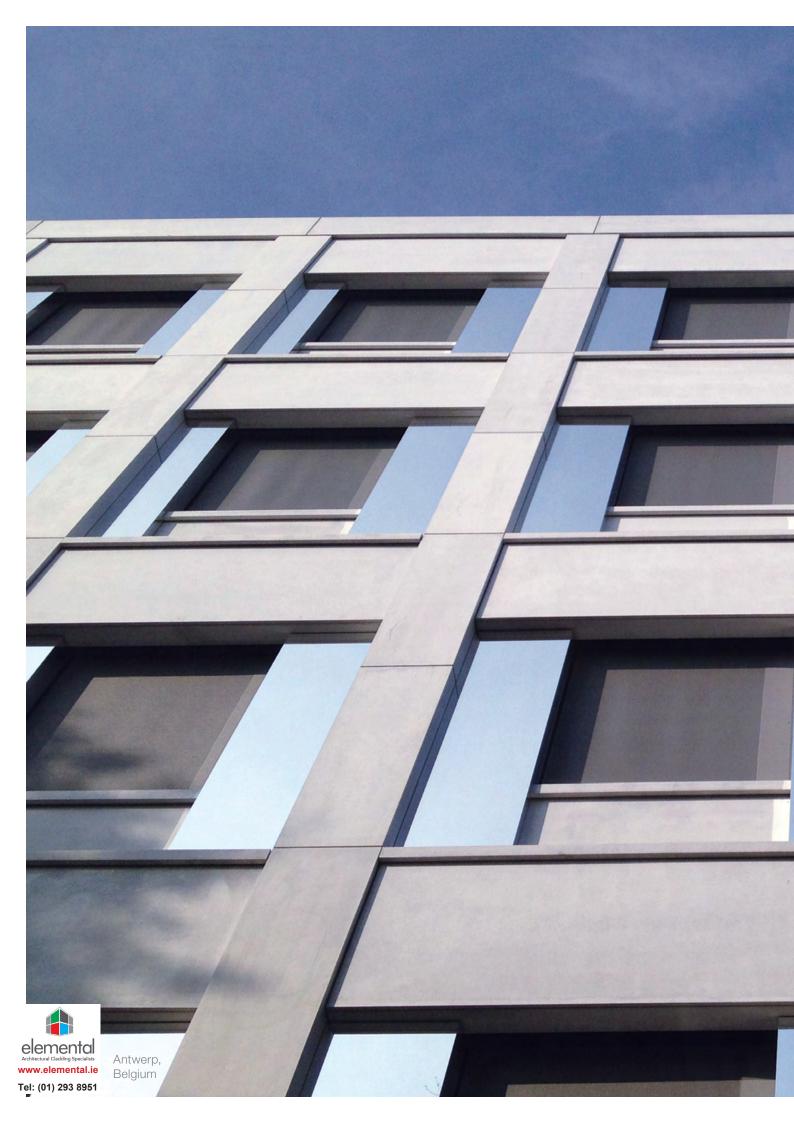
The difference between the two "systems" is obvious.

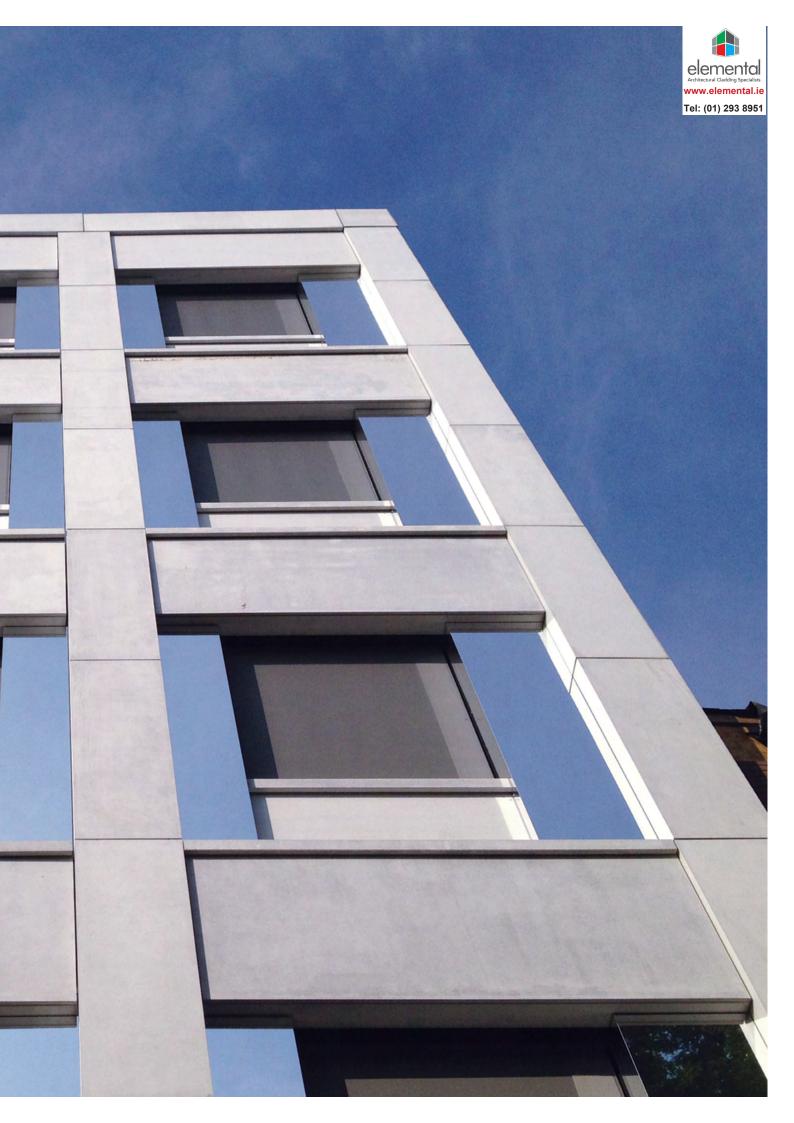
While in the case of spray, a substantial part coloring ingredient in solid particulate form (with the exception of the present organic dyes) can penetrate into the porous structure is limited. In the case of markers coloring component dissolved in the liquid easily penetrates into the space between the crystalline limestone and marble materials with high porosity (sandstone, limestone, plaster, etc.). Inorganic pigments (as part of sprays) are very stable to light and it is usually not possible to change their chemical structure, without challenging the substrate. In contrast, organic dyes (contained in the pens) can be under certain circumstances chemically decompose and thereby change their color or bleach completely.

The different behavior of markers and spray make effect when cleaning. Solubility of organic dyes markers in appropriate solvents on the one hand gives the possibility to facilitate their removal, but also causes a danger that, when such a cleaning portion penetrates deeper color components into the structure of the purified material and remains unremoved. This is also true for the soluble component of sprays. When cleaning sprays we try to dissolve or soften the paint binder and then insoluble colored pigment particles is mechanically removed (eg high pressure water).









### 1.7 Graphic concrete™

Technology Graphic Concrete™ is based on innovation of interior architect Samuli Naamanka. At the end of the 90th years of the last century Samuli began develop retarding and printing methods for production of drawings and designs on concrete surfaces. The inspiration was to create a real industrial product for large surfaces and tools which would get enabled architects to be visually creative. Traditional methods were based primarily on crafts and represented a small part of the art. Finally, his techniques were patented and the company Graphic ConcreteLtd. establishment in 2002.

Polycon Products offers this technology architects, they can use it for design of concrete facades and use the possibilities of prefabrication process. Industrial Architecture<sup>TM</sup> with Graphic concrete technology started in Finland and soon the first pieces were realized. The first facades used designs with simple stripes. When the architects began to understand the possibilities of this new technology, repetitive patterns began to appear more and more frequently. Repeating patterns designed by architects come under the brand GCPro<sup>TM</sup> to distinguish them from GCCollection<sup>TM</sup>. This is a separate collection of repeating patterns by Graphic Concrete.

Among the examples of design areas (where the Graphic Concrete<sup>TM</sup> technology is beeing used) now belongs prefabricated facades, sound barrier, the dividing wall of the building, precast concrete slab floors. The company enjoying a good growth and many of its projects are transnational in scope. Innovative technology Graphic Concrete<sup>TM</sup> is here briefly described.

The basic idea is the retarder application to the surface of a special membrane, which is subsequently applied by Polycon material. Retarders, which are printed on the membrane finish the concrete surface that the surface layer does not allow the product solidify in the form. Thus, the surface layer solidifies slowly and subsequently it can be washed out. The normal depth of pattern called fine exposure is approximately 1 mm. Architects can creatively use these very simple tools to create a variety of surfaces on the concrete choosing colored aggregates, by coloring the concrete surface layer and especially by applying uitable pattern to a concrete surface. Patterned smooth and completely exposed rougher surface constitute the final result

Production of Polycon technology Graphic Concrete™ runs in the factory. Membranes are printed by Graphic Concrete Ltd.

Polycon technology Graphic Concrete<sup>™</sup> product method allows you to produce high quality molded components and panels it and offers for designers a new product range. Manufacturer of Polycon material in collaboration with Graphic Concrete Ltd. cooperates throughout whole construction process through the phases of planning, production and construction, until the final concrete surfaces are finished and they become generally known.

The presented samples and offered standard designs enable us to become a part of the local culture through architectural applications of Graphic Concrete<sup>TM</sup> technology by design of motives that come directly from the local area of your implementation

The mission of Polycon technology Graphic Concrete™ products is to be specific.



### www.elemental.ie

Tel: (01) 293 8951

# Catalog Graphic Concrete<sup>TM</sup>



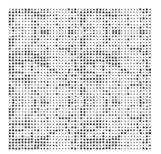
1.7 Graphic concrete™
Catalog of membranes

### GCGeo

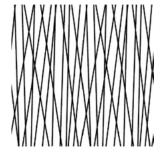
### **Atom Cross**



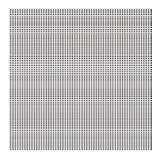
Piksel



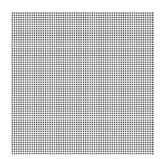
Vertex



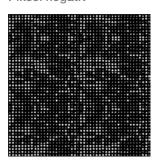
Wave Squares



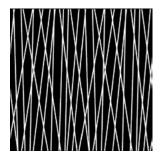
Circles



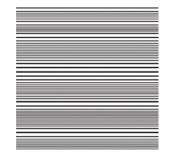
Piksel negativ



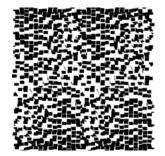
Vertex negativ



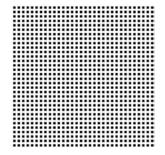
Wave Stripes



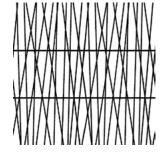
Extrude



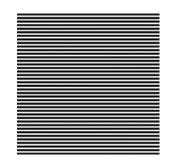
Squares



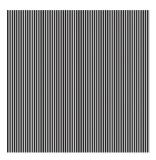
Vertices



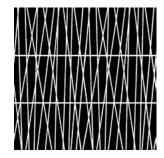
Stripes horizontal



Stripes vertical



Vertices negativ



**GCOrnaments** 





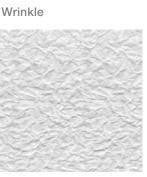
GroundSlab



### 1.7 Graphic concrete<sup>™</sup> Catalog of membranes

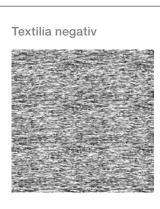
### **GCTexture**

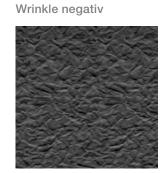


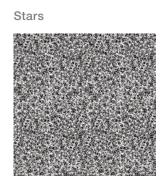


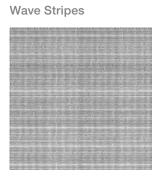


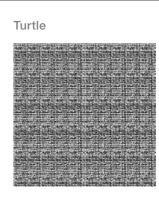




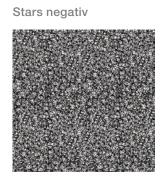


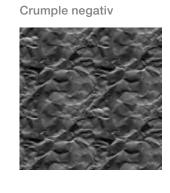


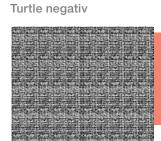














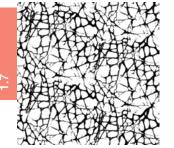




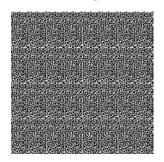
1.7 Graphic concrete™
Catalog of membranes

### **GCNature**

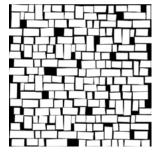




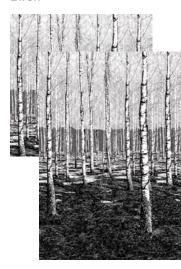
Pebbles 25 negativ



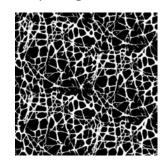
Irolro negativ



Birch



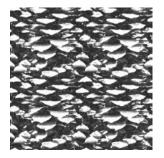
Juniper negativ



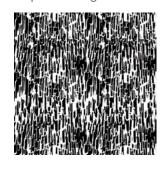
Piksel negativ



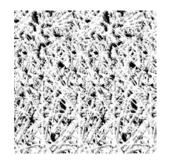
Cone



Drip down negativ



Haystack



Pebbles 100 negativ



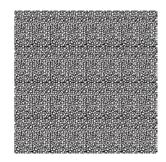
Roots



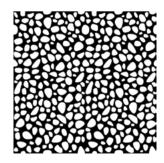
Irony



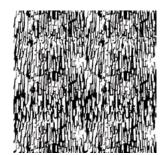
Pebbles 25



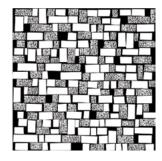
Pebbles 100



Drip down



Irony negativ

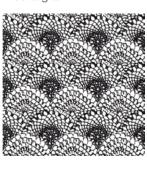


Birch+tailpiece

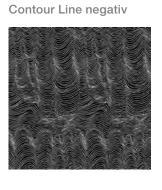
 $Graphic\ concrete^{\scriptscriptstyle\mathsf{TM}}$ 1.7 Catalog of membranes

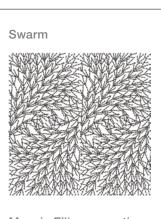
### **GCFlow**

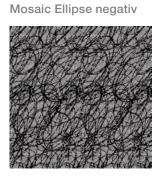


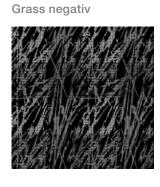


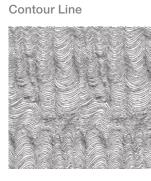




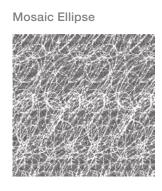




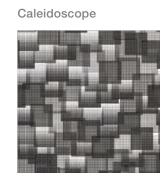




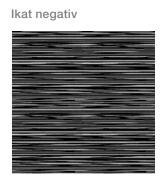


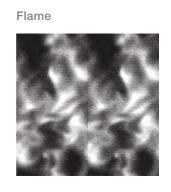












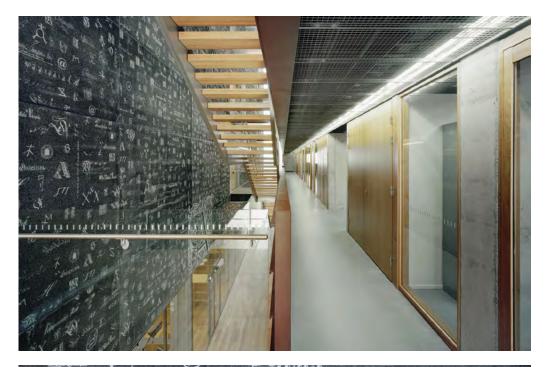
### elemental Architectural Cladding Specialists www.elemental.ie Tel: (01) 293 8951

### 1.0 Basic description





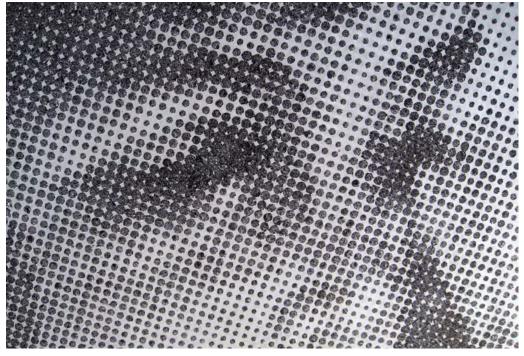
1.7 Graphic concrete<sup>™</sup> Catalog of membranes









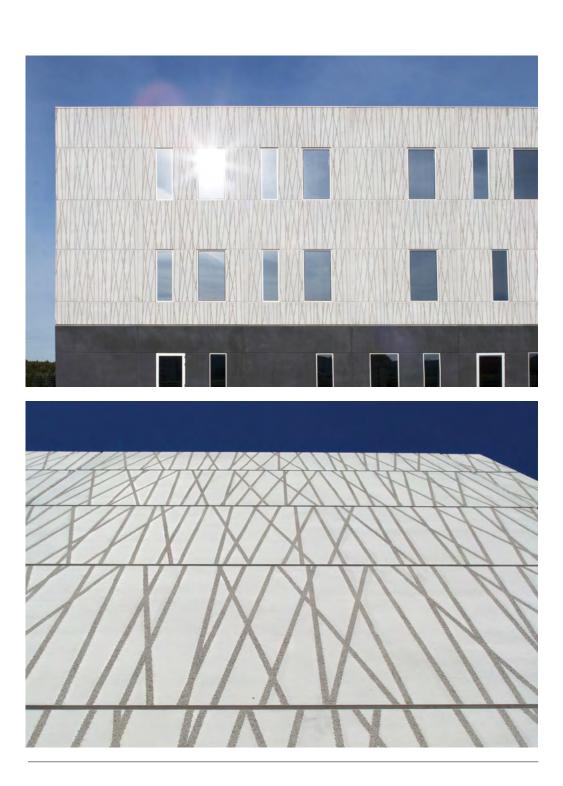
















elemental Architectural Cladding Specialists www.elemental.ie

Tel: (01) 293 8951

### 1.0 Basic description

### 1.8 Reckli catalog of imprinting formliners

Elastic structural formliners and their use in the manufacture of glass-fiber reinforced concrete elements represent unlimited design options visible surfaces. The architectural design is limited by the form type. Using the matrix eliminates almost all of limits of the glass-fiber reinforced concrete applicability. It si possible to form a facade design elements, acoustic elements, walkable elements and last but not least, garden architecture elements. The matrix is made from elastic polyurethane, whose high flexibility, elasticity and resilience enable seamless and completely demoulding and its texture reproducibility.

RECKLI® company catalog, can you choose about 250 standard structures, from stone imitations, wood and rocks to the Oriental and imaginative structures. Offer of design is not bounded by standard structures; individual matrix can be created according to your design. Model in 1:1 scale is produced the first, elastic matrix is made on this model and it serves as negative form of glass-fiber-concrete surface. Individual matrix offers unbounded design possibilities of structured visible surfaces. Only the technical limits of elastic polyurethane subsequent handling and transport must be taken into account.

Some textures create the visible area of a uniform facade structure and create the impression of monolithic facade. Due to the matrix repeatability the economic and aesthetic work can be achieved.

Innovative RECKLI® Photo-Gravur technology transfers photo to the facade by a special texturing of surface. The system creates a larger or smaller surface structure according to the resolution and then impression of photograph design concrete facade is created. This is a computer image transfer method for timber form milling technology. First of all the pictures are scanned and then converted to 256 gray levels.

Operating file is generated for the photo transfering to a wood form. The file contains special instructions for the CNC machining center. Milled model is used as a template for elastic RECKLI® – matrix manufacturing. Elasticity, quality and reproducibility enable aesthetically and economically enjoy a technology rendering of visually similar concrete surfaces Embossed surface Photo-Gravur creates an original image due to the impact of light and shadow. As each structure Photo-Gravur also revives through the play of lights and shadows on the facade. Matrix size is bounded by the maximum disposing forms size and maximum cutter flat size. Single parts of photos can be stacked together to create an overall picture.

### 3D matrix

This technology is unique because it is not just the view of geometric contours, but different height and depth creates a three-dimensional effect. Especially in interior the projecting texture forms the dominant features of the design. Milling 3D technique allows transfer the image to the model 3D in various levels. Then the model is used as the template for the RECKLI® matrix. Matrix size is bounded by the maximum disposing forms size and maximum cutter flat size.



### www.elemental.ie

Tel: (01) 293 8951

Reckli catalog of imprinting formliners

1.8

### Reckli catalog of imprinting formliners





1.8

### Reckli catalog of imprinting formliners



1.8



1.8







1.8



Tel: (01) 293 8951

#### 1.0 **Basic description**





1.8



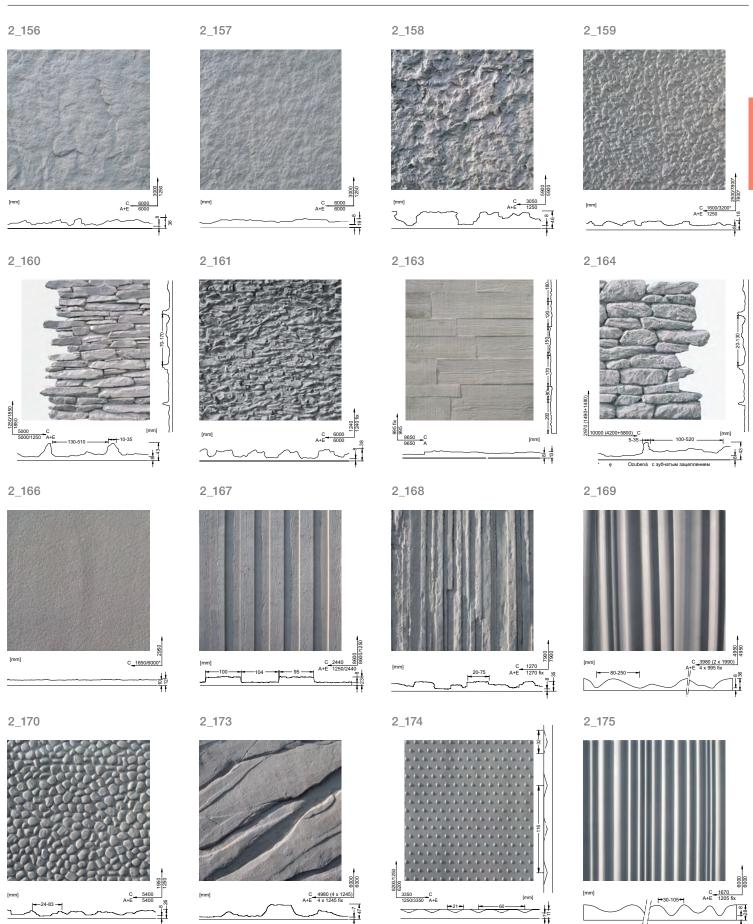
1.8







1.8



1.8



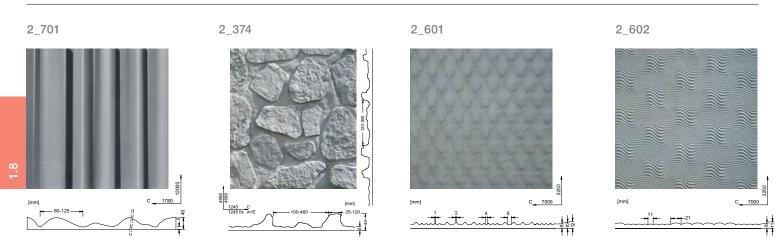


1.8

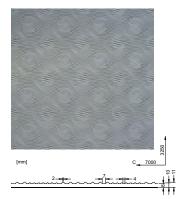


Tel: (01) 293 8951

## 1.0 Basic description







### Contact

FISCHER & PARTNER a.s. Římovská 5 198 00 Prague 14 Czech Republic info@polycon.info

