



Seamless 3D wall surfaces

**Armourcoat Sculptural® is a range of seamless sculptural wall surface designs.**

Armourcoat Sculptural® walls are constructed from a series of pre-cast panels that are bonded to the substrate. The panel joints are then filled and sanded and a final decoration is applied to the surface. Armourcoat Sculptural® designs are created by combining computer-aided design with traditional hand sculpting to create designs that fit together with total accuracy yet retain the essence of being hand crafted.

Some of the designs are based on a single panel that creates a repeating pattern; others are made from a sequence of different panels that can be integrated together in many different ways to create totally unique sculpted walls. The multiple panel designs make it possible to create non-repetitive seamless sculptural walls where the designs flow and change across the surface just as in nature. As a consequence, no two walls need ever be identical.

Armourcoat Sculptural® panels are mineral based and incorporate up to 30% post-consumer recycled content (depending on design), are non-toxic, and are completely non-combustible. The panels are extremely dense and hard with a smooth ceramic-like surface. Once the panels are installed each design can be finished in a range of decorative surface finishes. Some of the designs have been modeled in such a way as to enable the application of Armourcoat polished plaster finishes whilst other designs are more suited to a sprayed finish.

The following pages illustrate the range of stunning designs available. A custom service is available from design to manufacture and installation, to produce bespoke one-off designs.

## 27 UNIQUE DESIGNS



# DESIGN SPECIFICATIONS

SCULPTURAL DESIGN	PANEL DIMENSIONS (mm)	PANEL DEPTH (mm)	WEIGHT (kg/m²)	SPATULATA/ARMURALIA FINISH
AESIS	1200 X 800	18	16	YES
BARCODE	1200 X 800	15	16	NO
BASALT	1200 X 800	15	14	NO
BERGMAN	1200 X 800	20	15	NO
CORINTH	1200 X 800	15	15	NO
CORRUGATED	1200 X 800	20	20	NO
CYPHER	1200 X 800	15	14	NO
DOODLE	1200 X 800	14	14	NO
ELM	1200 X 800	24	15	NO
FLOW	1800 X 600	13	15	YES
FLOW STRAIGHT	1800 X 600	13	15	YES
FLOW WAVE	1800 X 600	13	15	YES
FLOW XL	1800 X 1000	40	15	YES
FLUTES	1200 X 800	15	15	NO
HOUR GLASS	1200 X 800	18	21	NO
INKANA	1200 X 800	13	14	NO
JET STREAM	1200 X 800	20	14	NO
LEAVES	1200 X 800	18	15	NO
MONROE	1200 X 800	20	14	NO
OREI	1200 X 800	18	15	NO
QUENCH	1200 X 800	25	22	NO
QUILT	1200 X 800	30	20	NO
RIBBONS	1200 X 800	21	13	YES
SCRIPT	1200 X 800	18	18	NO
SHOCK WAVE	1200 X 800	15	13	YES
SMOKE	1200 X 800	16	20	NO
VAPOUR	1200 X 800	18	23	NO

AESIS



SCALE 1:10

PANEL DIMENSIONS (mm)	PANEL DEPTH (mm)	WEIGHT (kg/m²)	NUMBER OF PANEL DESIGNS	AVAILABLE WITH SPATULATA/ARMURALIA FINISH
1200 x 800	18	16	1	YES



BARCODE

PANEL DIMENSIONS (mm)

1200 x 800

PANEL DEPTH (mm)

15

WEIGHT (kg/m<sup>2</sup>)

16

NUMBER OF PANEL DESIGNS

1

AVAILABLE WITH SPATULATA/ARMURALIA FINISH

NO

SCALE 1:10

BASALT

SCALE 1:10



PANEL DIMENSIONS (mm)

1200 x 800

PANEL DEPTH (mm)

15

WEIGHT (kg/m²)

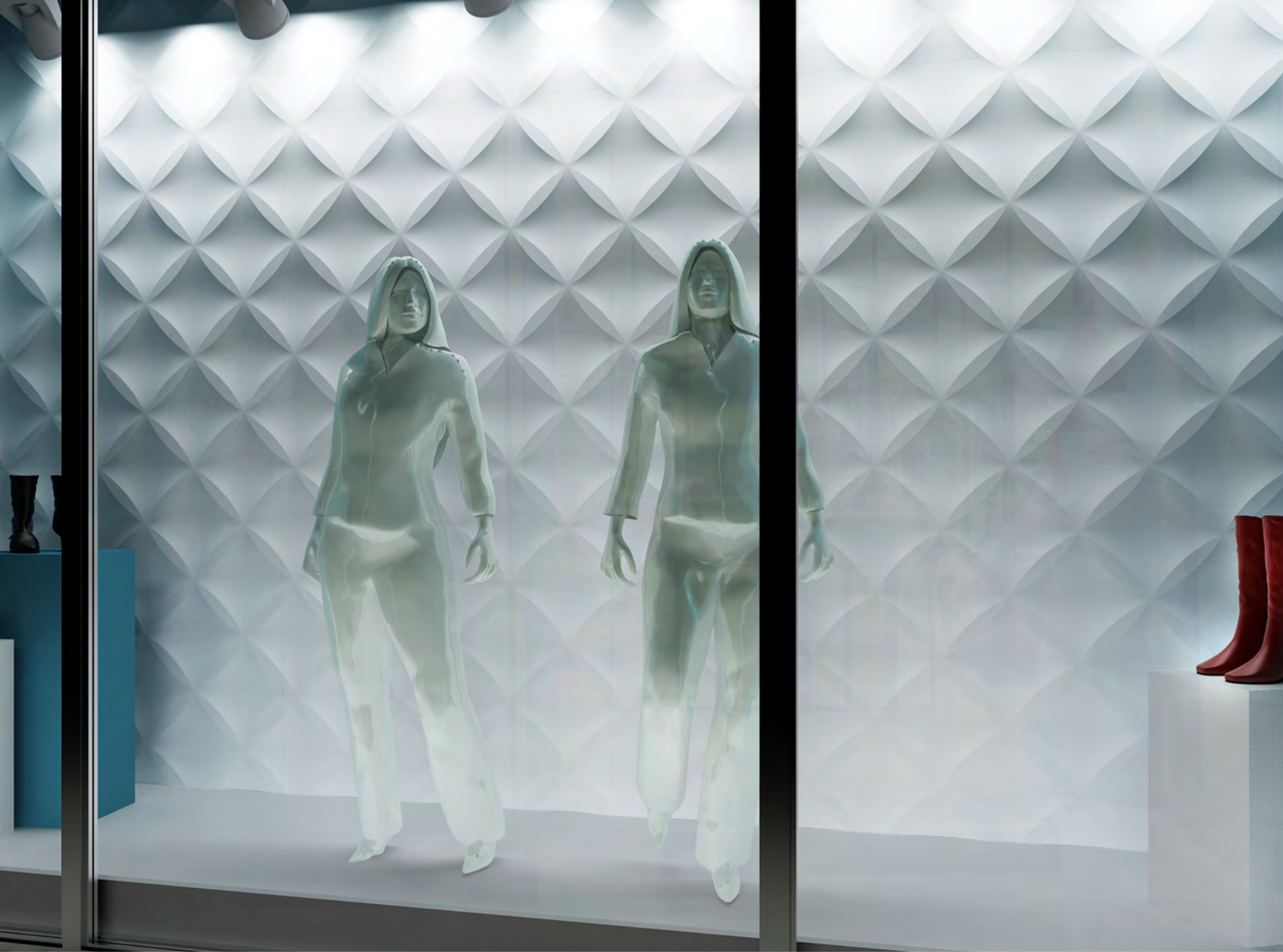
14

NUMBER OF PANEL DESIGNS

2

AVAILABLE WITH SPATULATA/ARMURALIA FINISH

NO



BERGMAN

PANEL DIMENSIONS (mm)

PANEL DEPTH (mm)

WEIGHT (kg/m²)

NUMBER OF PANEL DESIGNS

AVAILABLE WITH SPATULATA/ARMURALIA FINISH

1200 x 800

20

15

1

NO

SCALE 1:10

CORINTH



PANEL DIMENSIONS (mm)	PANEL DEPTH (mm)	WEIGHT (kg/m²)	NUMBER OF PANEL DESIGNS	AVAILABLE WITH SPATULATA/ARMURALIA FINISH
1200 x 800	15	15	1	NO



CORRUGATED

PANEL DIMENSIONS (mm)	PANEL DEPTH (mm)	WEIGHT (kg/m²)	NUMBER OF PANEL DESIGNS	AVAILABLE WITH SPATULATA/ARMURALIA FINISH
1200 x 800	20	20	1	NO

SCALE 1:10

CYPHER



SCALE 1:10

PANEL DIMENSIONS (mm)	PANEL DEPTH (mm)	WEIGHT (kg/m²)	NUMBER OF PANEL DESIGNS	AVAILABLE WITH SPATULATA/ARMURALIA FINISH
1200 x 800	15	14	2	NO



DOODLE



PANEL DIMENSIONS (mm)

1200 x 800

PANEL DEPTH (mm)

14

WEIGHT (kg/m<sup>2</sup>)

14

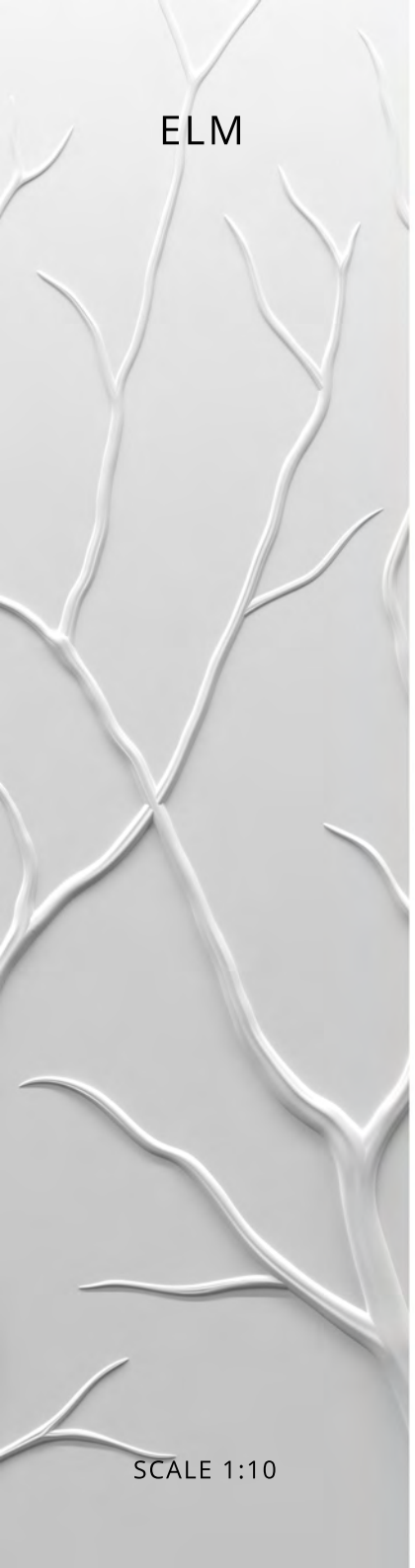
NUMBER OF PANEL DESIGNS

3

AVAILABLE WITH SPATULATA/ARMURALIA FINISH

NO

SCALE 1:10



ELM

SCALE 1:10



PANEL DIMENSIONS (mm)

1200 x 800

PANEL DEPTH (mm)

24

WEIGHT (kg/m<sup>2</sup>)

15

NUMBER OF PANEL DESIGNS

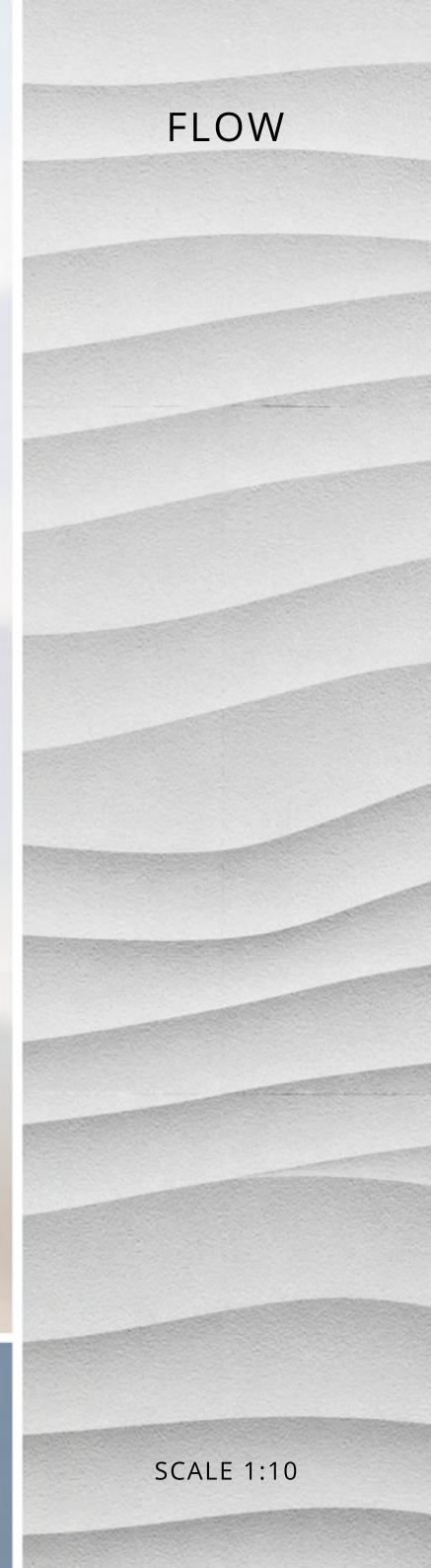
3

AVAILABLE WITH SPATULATA/ARMURALIA FINISH

NO



FLOW



SCALE 1:10

PANEL DIMENSIONS (mm)

1800 x 600

PANEL DEPTH (mm)

13

WEIGHT (kg/m<sup>2</sup>)

16

NUMBER OF PANEL DESIGNS

4

AVAILABLE WITH SPATULATA/ARMURALIA FINISH

YES

FLOW STRAIGHT



SCALE 1:10

PANEL DIMENSIONS (mm)	PANEL DEPTH (mm)	WEIGHT (kg/m²)	NUMBER OF PANEL DESIGNS	AVAILABLE WITH SPATULATA/ARMURALIA FINISH
1800 x 600	13	16	1	YES



FLOW WAVE



SCALE 1:10

PANEL DIMENSIONS (mm)

1800 x 600

PANEL DEPTH (mm)

13

WEIGHT (kg/m<sup>2</sup>)

16

NUMBER OF PANEL DESIGNS

1

AVAILABLE WITH SPATULATA/ARMURALIA FINISH

YES

FLOW XL

SCALE 1:10



PANEL DIMENSIONS (mm)	PANEL DEPTH (mm)	WEIGHT (kg/m²)	NUMBER OF PANEL DESIGNS	AVAILABLE WITH SPATULATA/ARMURALIA FINISH
1800 x 1000	40	15	1	YES

FLUTES



PANEL DIMENSIONS (mm)	PANEL DEPTH (mm)	WEIGHT (kg/m²)	NUMBER OF PANEL DESIGNS	AVAILABLE WITH SPATULATA/ARMURALIA FINISH
1200 x 800	15	15	1	NO

SCALE 1:10

HOUR GLASS



SCALE 1:10

PANEL DIMENSIONS (mm)	PANEL DEPTH (mm)	WEIGHT (kg/m²)	NUMBER OF PANEL DESIGNS	AVAILABLE WITH SPATULATA/ARMURALIA FINISH
1200 x 800	18	23	1	NO



INKANA



PANEL DIMENSIONS (mm)

1200 x 800

PANEL DEPTH (mm)

13

WEIGHT (kg/m<sup>2</sup>)

14

NUMBER OF PANEL DESIGNS

3

AVAILABLE WITH SPATULATA/ARMURALIA FINISH

NO

SCALE 1:10

JET STREAM

SCALE 1:10



PANEL DIMENSIONS (mm)

1200 x 800

PANEL DEPTH (mm)

20

WEIGHT (kg/m<sup>2</sup>)

14

NUMBER OF PANEL DESIGNS

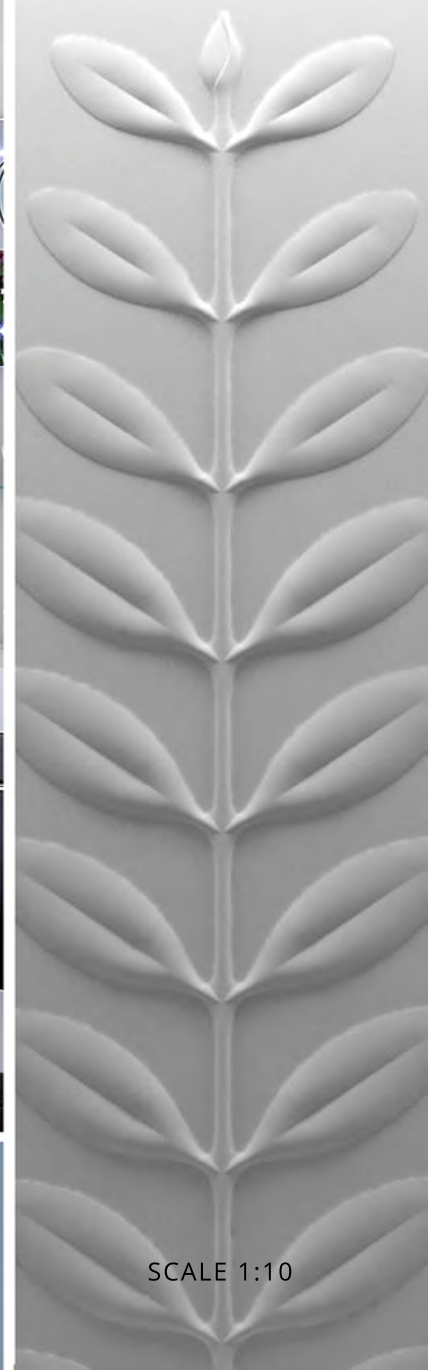
1

AVAILABLE WITH SPATULATA/ARMURALIA FINISH

NO



LEAVES



PANEL DIMENSIONS (mm)

1200 x 800

PANEL DEPTH (mm)

18

WEIGHT (kg/m<sup>2</sup>)

15

NUMBER OF PANEL DESIGNS

2

AVAILABLE WITH SPATULATA/ARMURALIA FINISH

NO

SCALE 1:10

MONROE



SCALE 1:10

PANEL DIMENSIONS (mm)	PANEL DEPTH (mm)	WEIGHT (kg/m²)	NUMBER OF PANEL DESIGNS	AVAILABLE WITH SPATULATA/ARMURALIA FINISH
1200 x 800	20	14	1	NO



OREI

PANEL DIMENSIONS (mm)

1200 x 800

PANEL DEPTH (mm)

18

WEIGHT (kg/m<sup>2</sup>)

15

NUMBER OF PANEL DESIGNS

1

AVAILABLE WITH SPATULATA/ARMURALIA FINISH

NO

SCALE 1:10

QUENCH

SCALE 1:10



PANEL DIMENSIONS (mm)	PANEL DEPTH (mm)	WEIGHT (kg/m²)	NUMBER OF PANEL DESIGNS	AVAILABLE WITH SPATULATA/ARMURALIA FINISH
1200 x 800	25	22	4	NO



QUILT

PANEL DIMENSIONS (mm)	PANEL DEPTH (mm)	WEIGHT (kg/m²)	NUMBER OF PANEL DESIGNS	AVAILABLE WITH SPATULATA/ARMURALIA FINISH
1200 x 800	30	20	1	YES

SCALE 1:10

RIBBONS



SCALE 1:10

PANEL DIMENSIONS (mm)	PANEL DEPTH (mm)	WEIGHT (kg/m²)	NUMBER OF PANEL DESIGNS	AVAILABLE WITH SPATULATA/ARMURALIA FINISH
1200 x 800	21	14	1	YES



SCRIPT

PANEL DIMENSIONS (mm)

1200 x 800

PANEL DEPTH (mm)

18

WEIGHT (kg/m<sup>2</sup>)

17

NUMBER OF PANEL DESIGNS

3

AVAILABLE WITH SPATULATA/ARMURALIA FINISH

NO

SCALE 1:10

SHOCK WAVE



PANEL DIMENSIONS (mm)	PANEL DEPTH (mm)	WEIGHT (kg/m²)	NUMBER OF PANEL DESIGNS	AVAILABLE WITH SPATULATA/ARMURALIA FINISH
1200 x 800	15	14	1	YES



SMOKE

PANEL DIMENSIONS (mm)	PANEL DEPTH (mm)	WEIGHT (kg/m²)	NUMBER OF PANEL DESIGNS	AVAILABLE WITH SPATULATA/ARMURALIA FINISH
1200 x 800	17	17	4	NO

SCALE 1:10

VAPOUR



PANEL DIMENSIONS (mm)

1200 x 800

PANEL DEPTH (mm)

18

WEIGHT (kg/m<sup>2</sup>)

23

NUMBER OF PANEL DESIGNS

3

AVAILABLE WITH SPATULATA/ARMURALIA FINISH

NO

## Location

Standard Armourcoat Sculptural® panels are suitable for internal use and areas that are not exposed to the elements or large temperature fluctuations.

## Wall size

We do not recommend installing Armourcoat Sculptural® panels to wall in excess of 10 metres in length or 40m<sup>2</sup> in surface area without some form of control joint or expansion gap. In situations where the aesthetics demand long uninterrupted surfaces the control joint can be filled with a flexible filler or mastic that is close in colour to the rest of the wall. Large walls are subject to a risk of small hairline cracks developing between the panels due to slight substrate movement or thermal expansion and contraction.

## Internal and external corners

It is possible to create both internal and external corners with Armourcoat Sculptural designs. Please note, however, that it is a time consuming process that will add additional costs. We therefore do not recommend the use of Armourcoat Sculptural® walls in situations where there are multiple changes of surface plane within a small area.

External corners are created by cutting and mitering the panel and then installing the panels around the corner. 2-3mm of the panel is lost in the cutting and mitering process but this is made up with the Bondplast™ filler.

The nose of the corner is then hand shaped with a chisel, file or sandpaper to create a pencil round that still reflects the sculptural shape of the corner.

Internal corners are also created by mitering the panels however in mitering a panel that is 20mm in thickness for an internal corner a section of the design of about 40mm in width is lost with the consequence that the sculpted lines of the surface will not line up. It is therefore necessary to use two panels instead of one which does create significant panel wastage. Due to this panel wastage internal corners are more expensive to create than external corners.

## Curved walls

Armourcoat Sculptural® designs can be installed onto curved walls provided they are of a consistent radius. The minimum radius for curved walls is 2500mm. All the panels are custom made for each project to the required radius and special packing crates are made to support the curved panels. There are additional costs for the mould bases, additional casting time and the custom made packaging.

To achieve the best visual results we would recommend the use of light colours as the level of contrast between the lit and shaded areas is greatest. Using darker colours will reduce the dramatic effect created by the lighting. Armourcoat can offer a number of specialist finishes that can be applied to the surface.

Some of the designs have certain finish limitations due to the form and shape of the surface.

## Lighting

Achieving the correct lighting is critical to the success of Armourcoat Sculptural® walls. To get the best results it is important to light the surface to achieve the optimum interplay between highlight and shadow.

The walls can either be down lit, up lit or even cross lit for any design that runs vertically. The angle of incidence for the light source to the face of the wall can vary depending upon the effect required, but as a guide we would recommend that the light strikes the wall surface at an angle of between 8-25° with 15-18° being about the optimum. For a 3m high wall you would set the halogen spots into the ceiling about 400mm from the face of the wall. The light will be striking the wall at about 12° 1m from the floor, 15° at 1.5m and 23° at 2m up.

For even more dramatic effect it is possible to install LED colour change 'Luminaire' lighting in combination with a programmable DMX control system. This makes it possible to wash the wall in almost any colour, have different colours fading in and out or any number of unique programmable coloured lighting effects.



## Inspiration

The first part of the process is to formalize the design in terms of shape, form and function. This will consider the detailing, fixing points and structural integrity of the design. Once a concept has been established and key detailing has been worked out, transforming it into the finished design can be achieved in a variety of ways.

## Design

Certain designs are developed using 3D modeling software such as Solidworks, Rhino or Autocad, and the original master is then cut using precision CNC routers. Other designs may be entirely hand-sculpted or modeled in clay to achieve the correct feel and form. It is possible to combine computer aided design with a degree of hand sculpting to reach the desired result.

## Creating the model and mould

Once the master has been created it is necessary to produce one or more mould negatives from which the final pieces can be cast. The type of mould will either be Plywood/MDF, GRP (Glass Reinforced Polyester) or Silicone – depending on the size, shape and complexity of the master.

