

Introduction to HI-MACS®

Although HI-MACS is almost as robust as stone, it can be worked in the same way as wood. It lends itself to the creation of an endless variety of multi-dimensional forms and much, much more.



Showroom Nicolas Feuillatte / Location: Chouilly, France / Design: SAT Manager, France / Fabrication: JP Martin Menuiserie, Agnesina

HI-MACS[®]

Five benefits of HI-MACS



Advanced Technology



Unlimited Color Spectrum



Seamless Perfection



Three Dimensional Design Process



Dramatic Translucency



Advanced Technology

The material is heated in a progressive tempering process (Thermal Cure), which sets HI-MACS apart from other mineral materials and produces a new and stronger compound in which any structural defects are perfectly evened out.

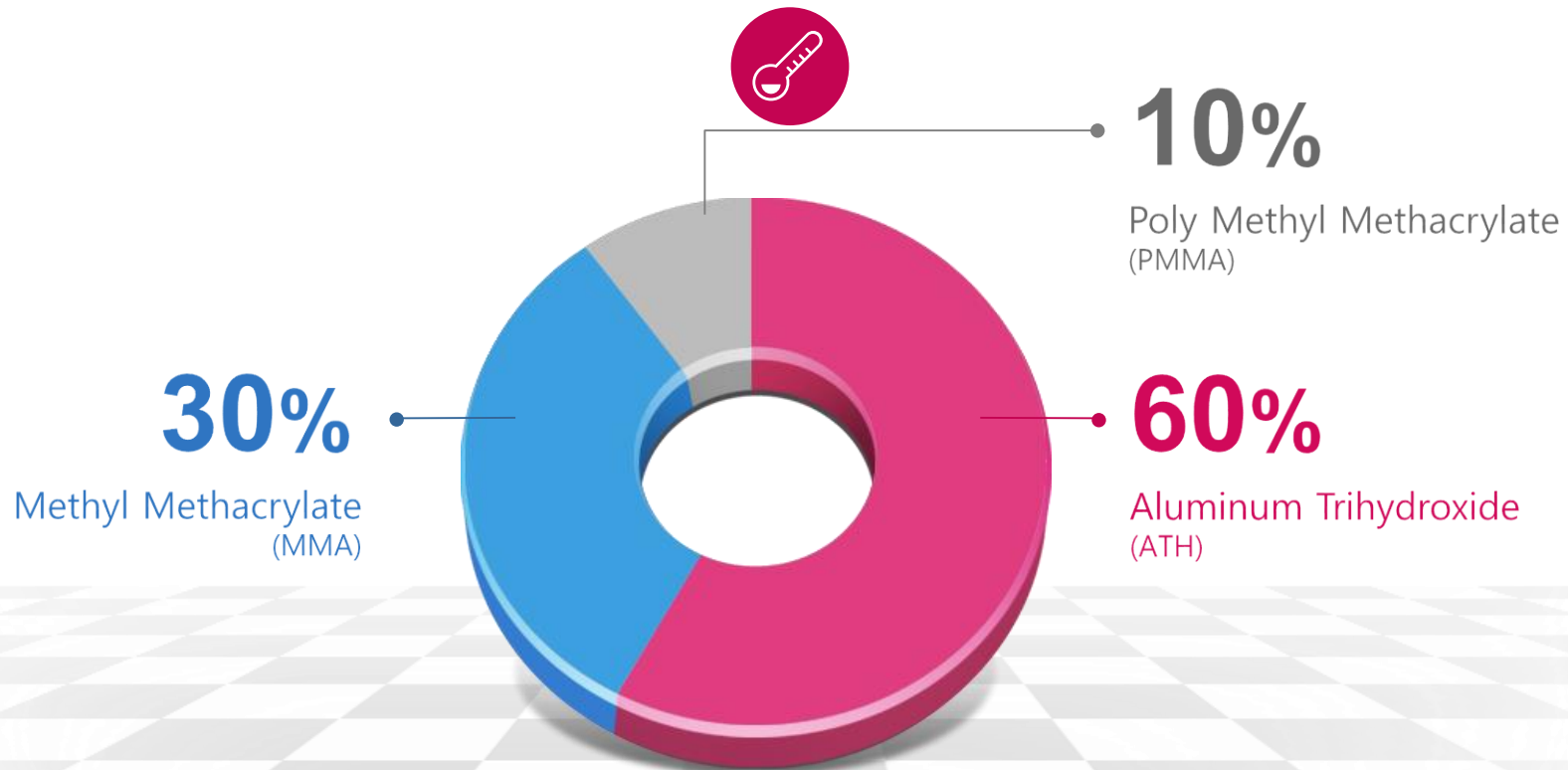
Stairs Design: Ingenieurbüro Pradel GbR, Germany / Fabrication: Nautilus Treppen GmbH & Co. KG, Germany, nautilus-treppen.de / Material: HI-MACS® Diamond White



What exactly is HI-MACS

Advanced Technology

HI-MACS Acrylic Solid Surface™ is manufactured from



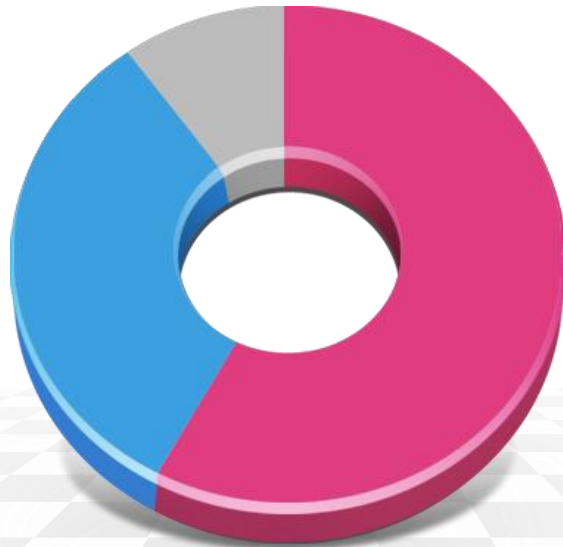


What exactly is HI-MACS

Advanced Technology

HI-MACS Acrylic Solid Surface™ is manufactured from

Aluminum Trihydroxide (ATH) 60%
Methyl Methacrylate (MMA) 30%
Poly Methyl Methacrylate (PMMA) 10%



Stronger surface with durability similar to that of natural stone.



No matter if it's a scratch, stain or crack, HI-MACS can be restored to its Original Appearance by a certified professional.



HI-MACS is ideal for places where security is the number 1 criteria of choice.

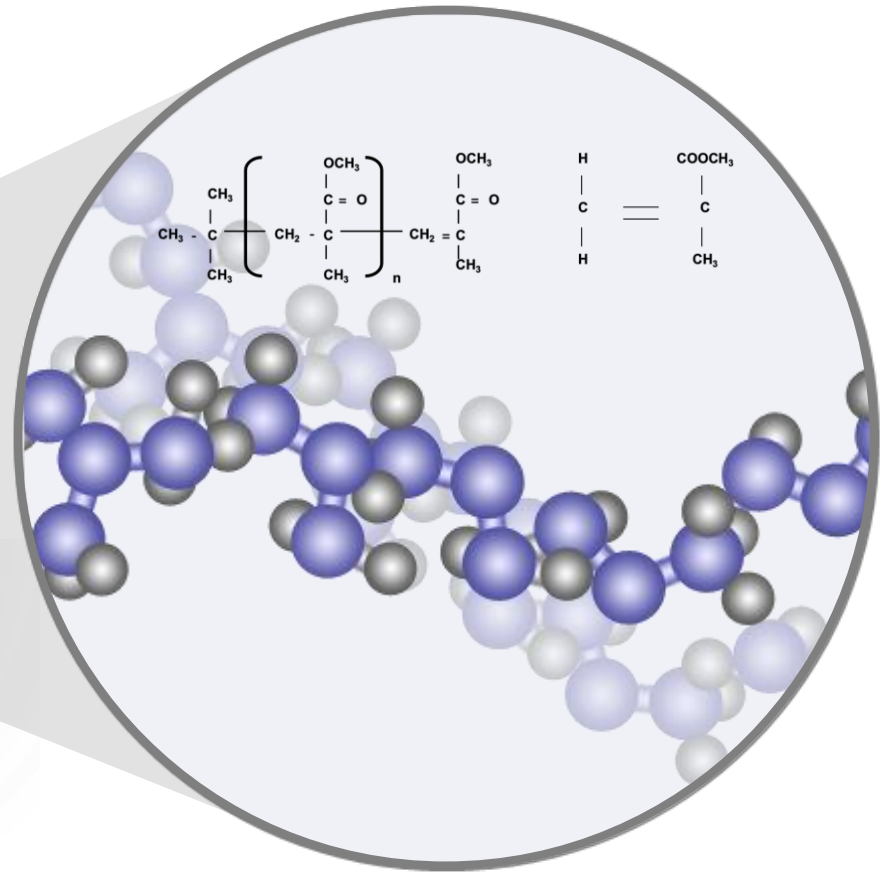
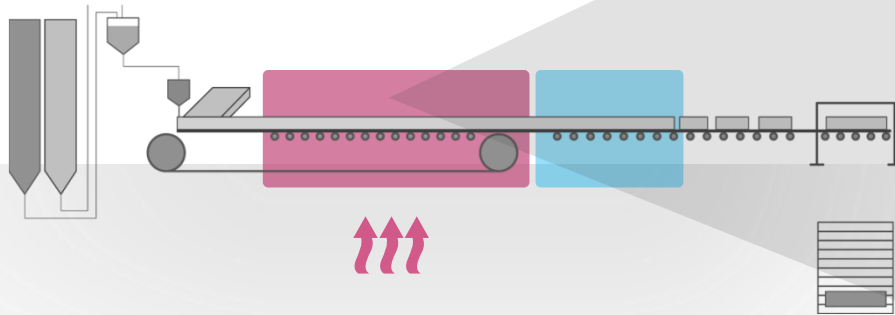


Thanks to its non-porous surface HI-MACS is suitable for humid areas such as wet rooms and bathrooms.

Advanced polymer resin technology

Advanced Technology

High temperature
hardening process



Advanced polymer resin technology

Advanced Technology

As HI-MACS is easy to fabricate, it reduces costs and its high durability allows long period usage.

1
Easy to
cut

2
Easy to
sand

3
High-gloss
finish

4
Easy
Maintenance





Advanced Technology
Easy to fabricate



Plantronics

Location: Hoofddorp, The Netherlands / Design: Plantronics / HI-MACS® Supplier: Baars & Bloemhoff / The Netherlands Material: HI-MACS®, Alpine White



Advanced Technology
Easy to fabricate

Artika kitchen

Design: Pedini, Italy, pedini.it / Fabricator: FG Arredi srl, Italy, fgarredi.it / Material: HI-MACS®, Babylon Beige



Unlimited Color Spectrum

HI-MACS offers a virtually limitless range of colors in all conceivable shades. Colors are key in design. We have whatever color you want – it's your choice.

V Rev Vegan Restaurant / Location: Manchester, UK(United Kingdom) / Designer: Acme Refrigeration, UK / Fabrication: Retail Outlet Design, UK / HI-MACS® Supplier: James Latham, UK / Material: HI-MACS® Emerald, Banana



Diamond White, 30% whiter than our whitest white

Unlimited Color Spectrum

Diamond White



Perna White



Diamond White



Nordic White



Alpine White



Arctic White



Ivory White



Satin White



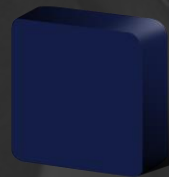
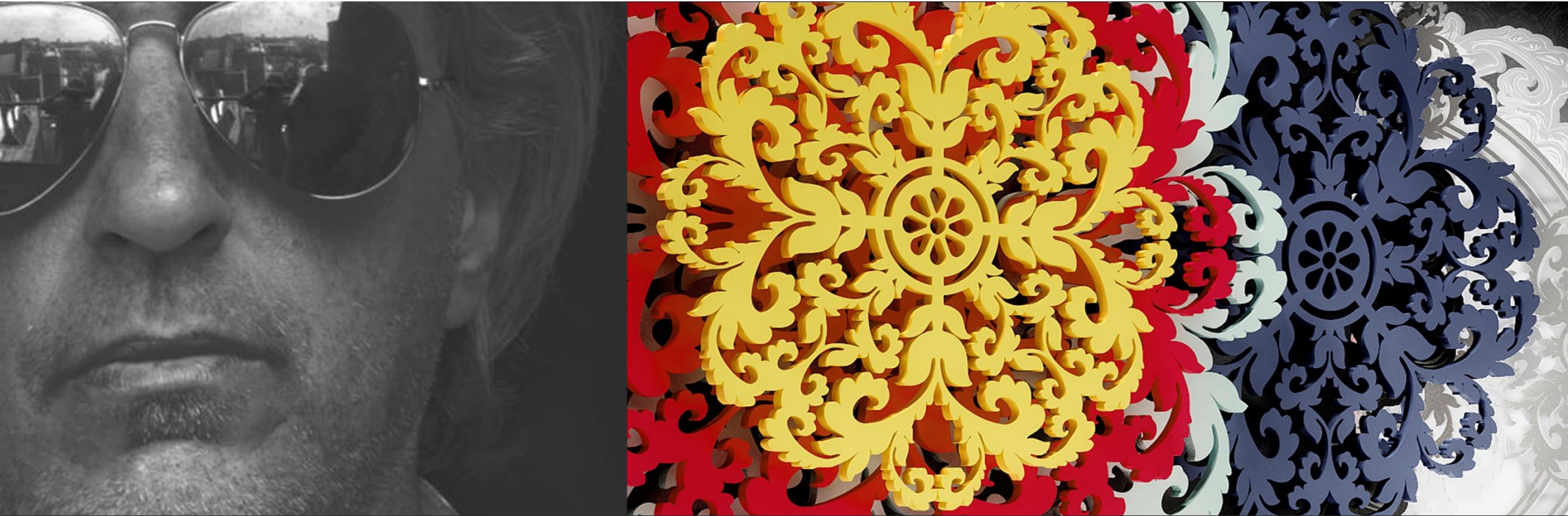
Opal

Milan Design Week 2015

"Rational and emotional worlds"

Marcel Wanders

Unlimited Color Spectrum



Mazarin Blue



Alpine White



Fiery Red



Lemon Squash

Milan Design Week 2014 "Sparkle Krib"

Karim Rashid

Unlimited Color Spectrum



Hotel Puerta America, Spain

Zaha Hadid

Unlimited Color Spectrum



Alpine White



Black

Hotel Puerta America, Spain

Ron Arad

Unlimited Color Spectrum



Alpine White



Fiery Red

Kindergarten, Switzerland

Herrmann Flavio, Switzerland

Unlimited Color Spectrum



Sky Blue



Sapphire



Banana



Emerald



Ruby



Light Green

Three-way speaker system, Germany

Jens Burmeister & FH Potsdam

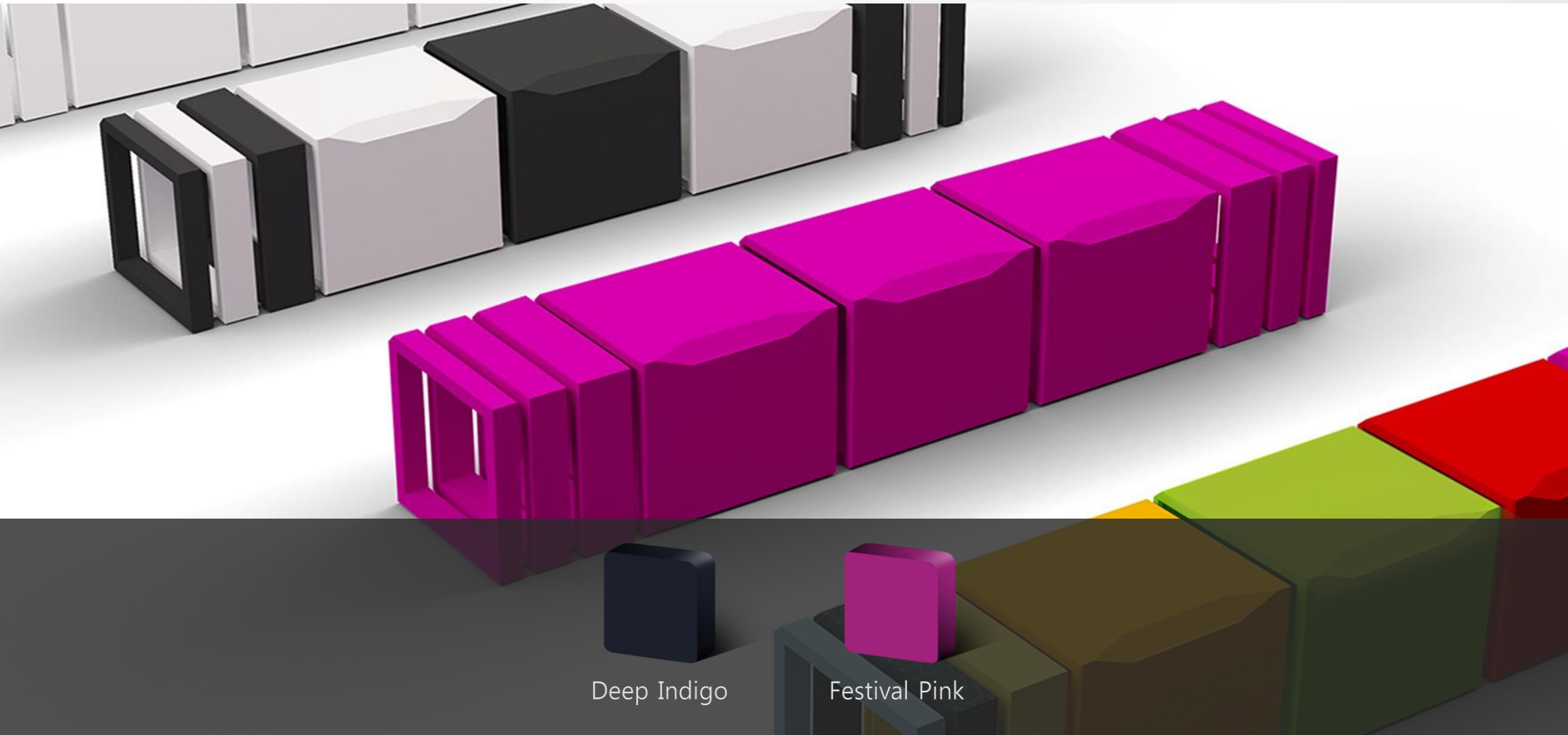
■ Unlimited Color Spectrum



Stone Bench, Digiplay

Christophe MAYER

■ Unlimited Color Spectrum



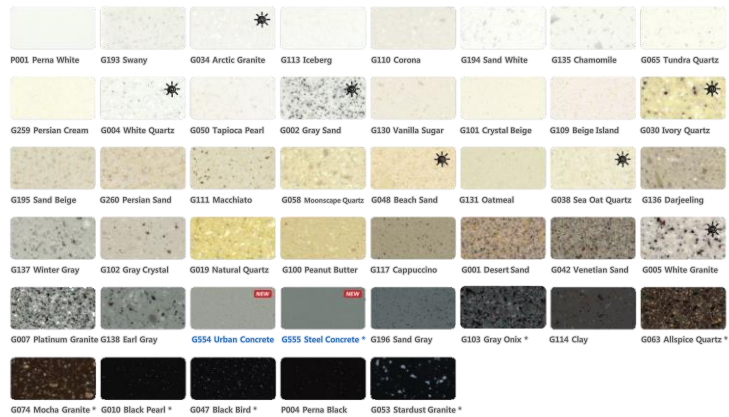
Deep Indigo

Festival Pink

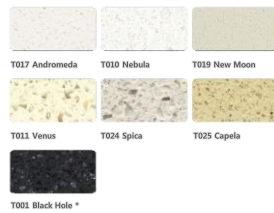
Colors

Unlimited Color Spectrum

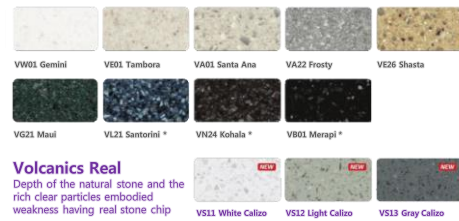
Granite



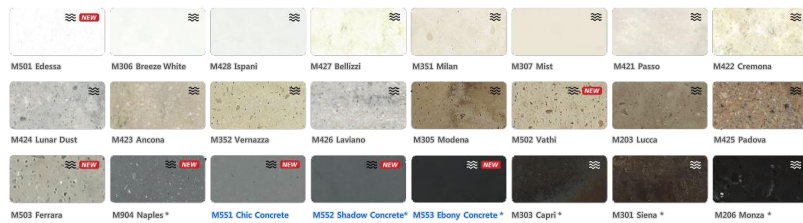
Aster(Galaxy)



Volcanics



Marmo



Solid



Lucent



Lucia



Concrete Collection

The product line embodies the rough texture of raw concrete with the smooth finish of HI-MACS®. Available in five shades of concrete inspired from modern industrial architecture, they can be used in any applications, such as wall covering, kitchens and bathrooms, adding a special ambience to the space.



* Disclaimer colors are less suitable for surfaces which are subject to high traffic, due to their deep color saturation, marks may be seen more easily.

✦ Suitable for exterior use. Please check conditions about level of suitability and warranty per color.

✦ Design by Dutch Designer Marcel Wanders

✦ Lucient colors have a higher level of translucency, more evident when combined with light source.

✦ As Marmo is a randomly veined product, specific fabrication guidelines need to be followed. Ask your sales partner for more information.



Seamless Perfection

HI-MACS allows for visually seamless manipulation. Smooth integration enables large areas without joints or edges as well as flush mounting of sinks or bowls.

Guangzhou Opera House by Zaha Hadid, Huajiu Road, Tianhe District, Guangzhou city, Guandong-China

How to achieve seamless design?

 Seamless Perfection

1

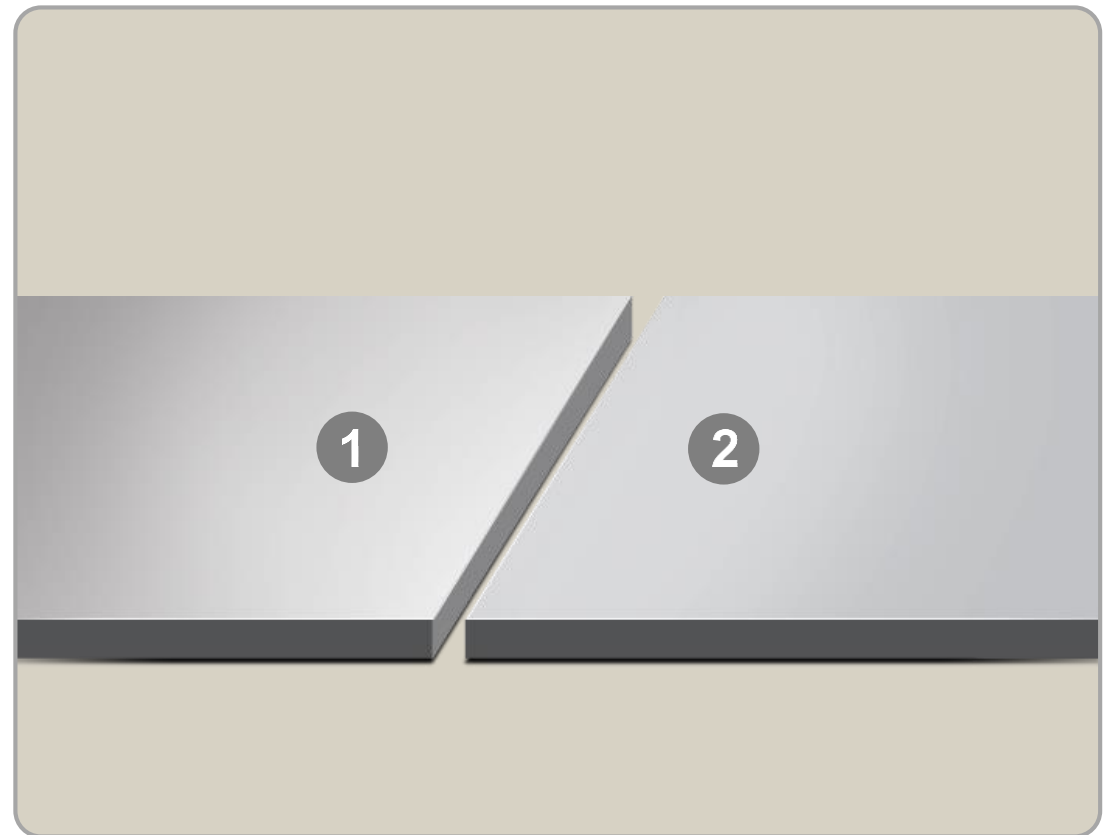
Prepare two pieces of HI-MACS®

—
Joint Bonding

—
Clamp the assembly and dry

—
Sanding

—
Completion of seamless fabrication



How to achieve seamless design?

Seamless Perfection

2

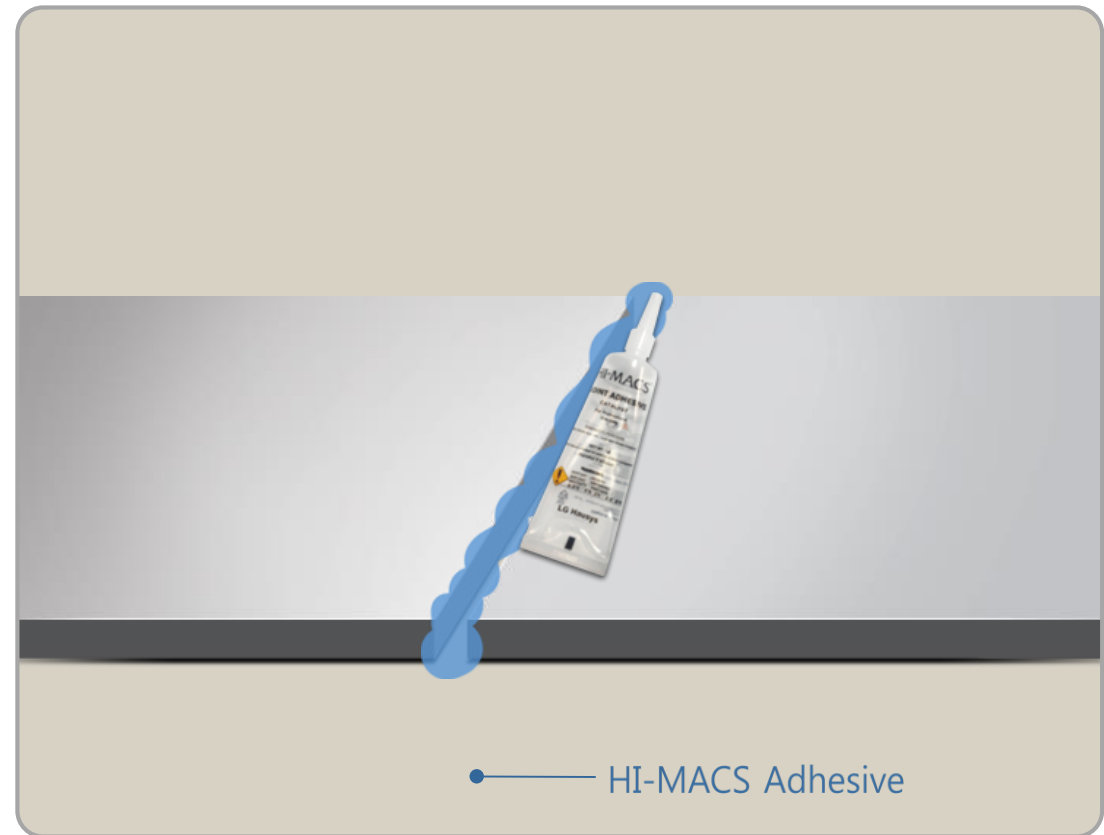
Prepare two pieces of HI-MACS®

Joint Bonding

Clamp the assembly and dry

Sanding

Completion of seamless fabrication



How to achieve seamless design?

Seamless Perfection

2

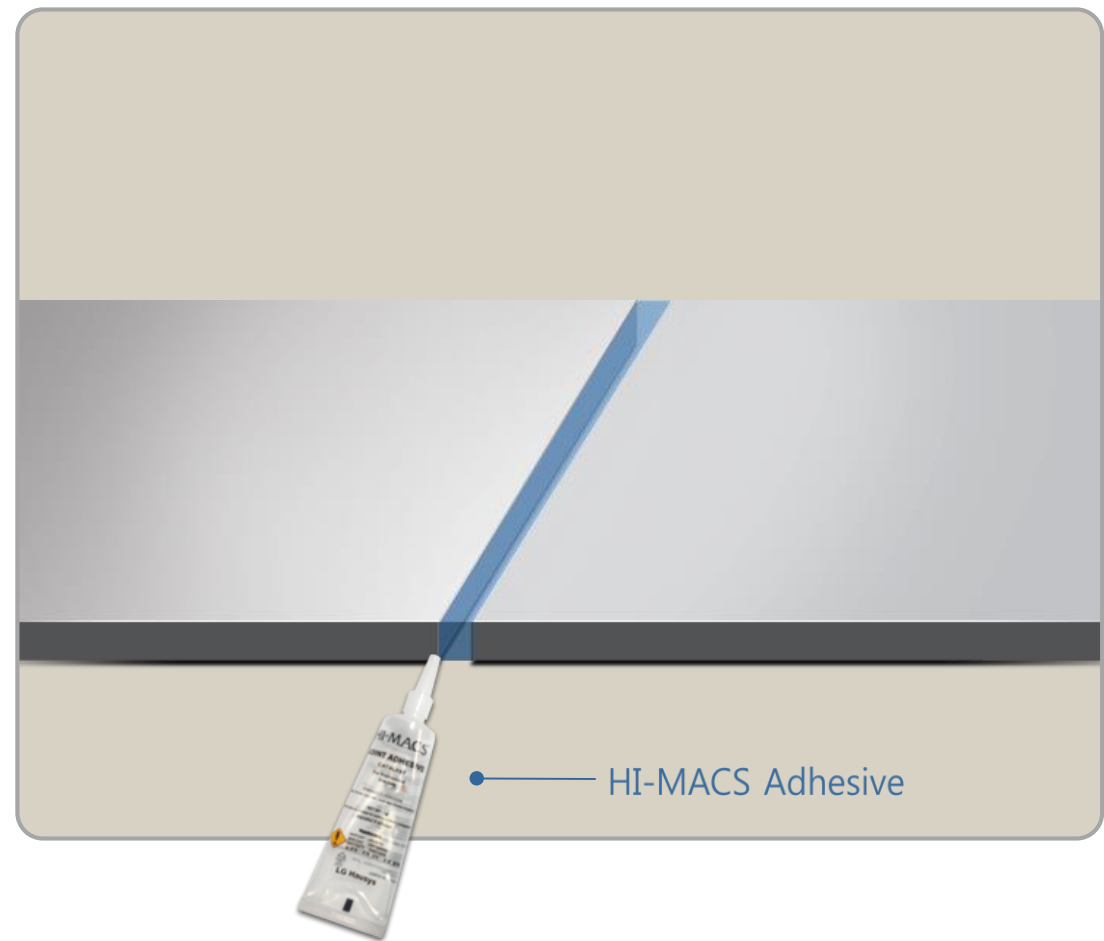
Prepare two pieces of HI-MACS®

Joint Bonding

Clamp the assembly and dry

Sanding

Completion of seamless fabrication



How to achieve seamless design?

Seamless Perfection

3

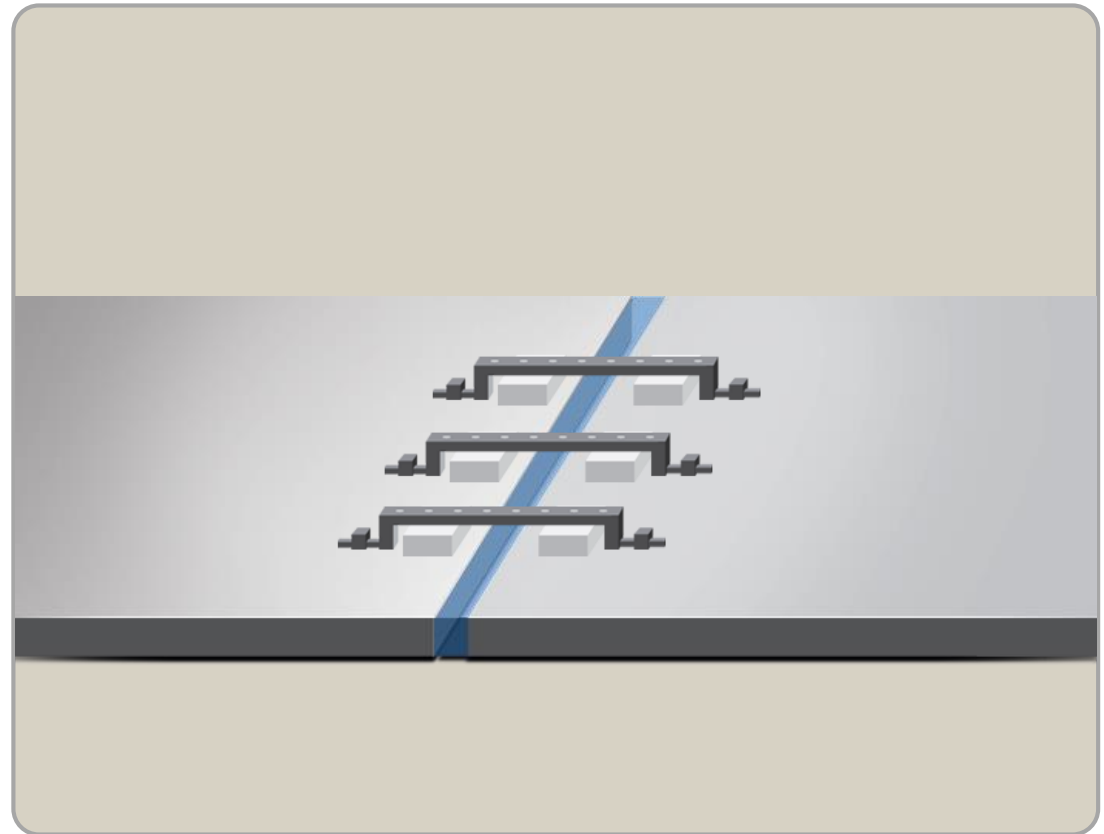
Prepare two pieces of HI-MACS®

—
Joint Bonding

—
Clamp the assembly and dry

—
Sanding

—
Completion of seamless fabrication



How to achieve seamless design?

Seamless Perfection

4

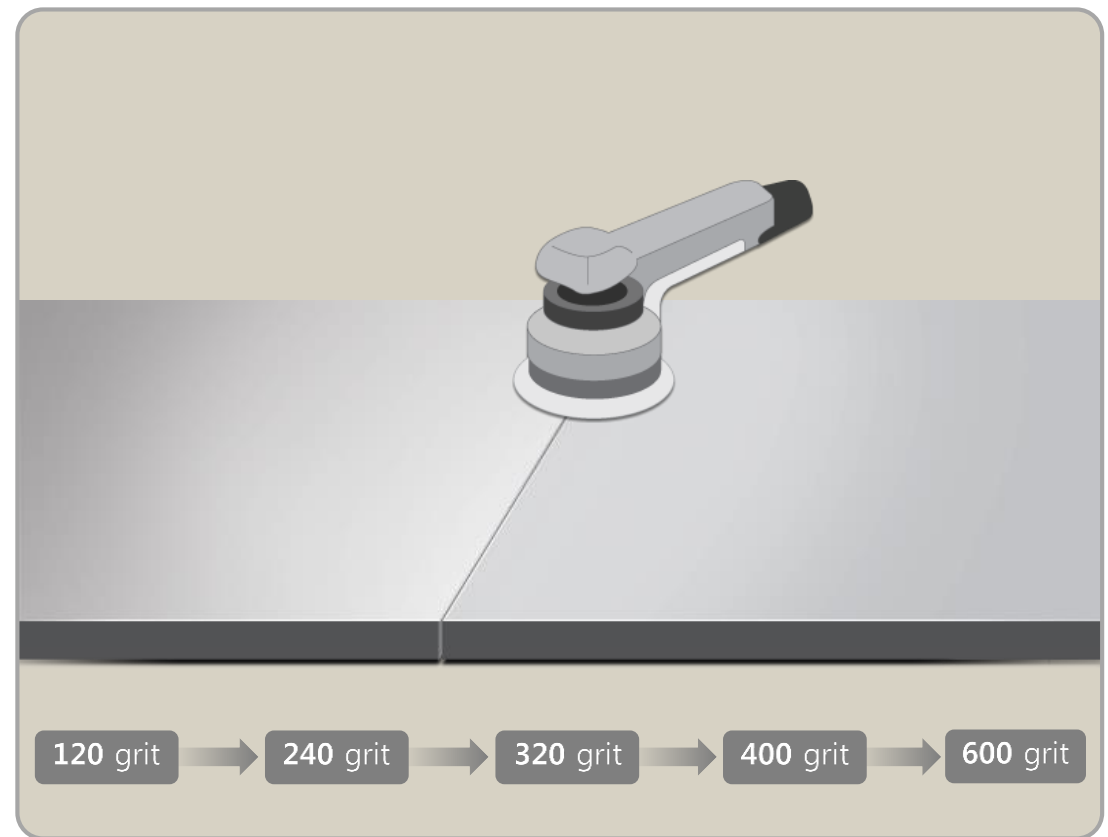
Prepare two pieces of HI-MACS®

Joint Bonding

Clamp the assembly and dry

Sanding

Completion of seamless fabrication



How to achieve seamless design?

Seamless Perfection

5

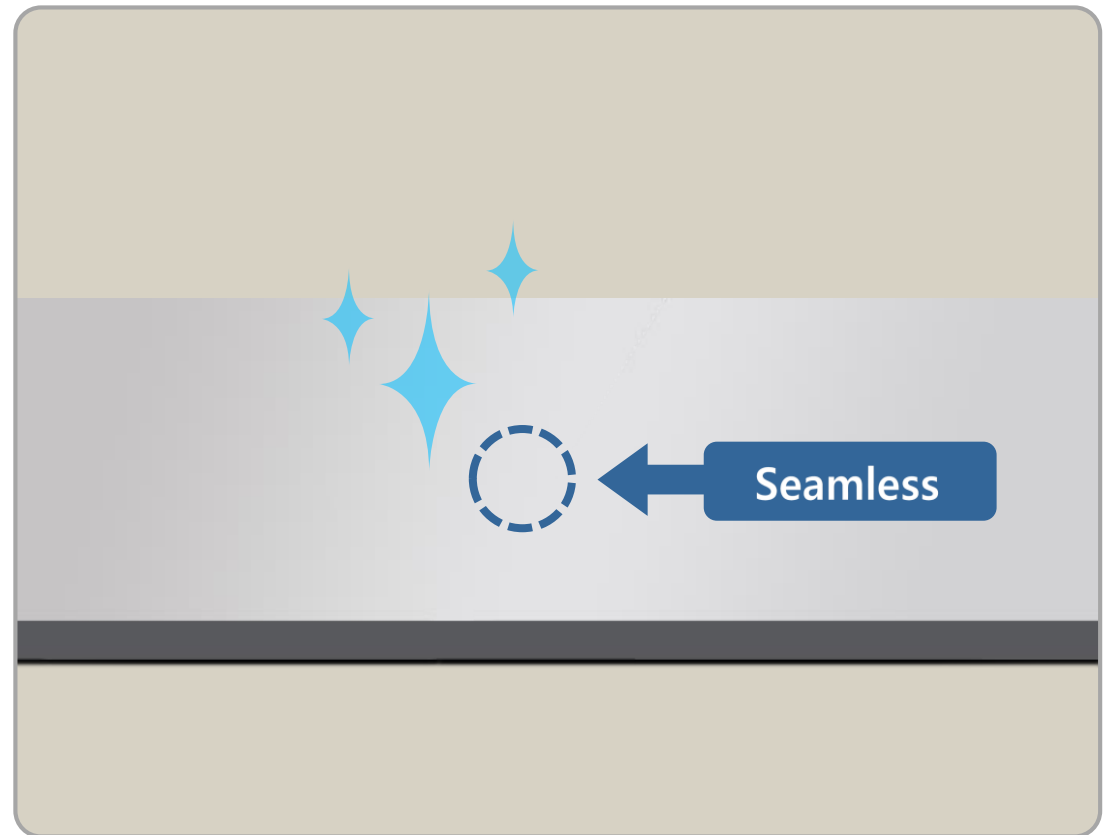
Prepare two pieces of HI-MACS®

—
Joint Bonding

—
Clamp the assembly and dry

—
Sanding

—
Completion of seamless fabrication





Exprompt Dominion

Designed by Zaha Hadid, Location : г. Москва, HI-MACS® Black



Dongdaemun Design Plaza

Designed by Zaha Hadid, Location : Seoul, Korea, HI-MACS® Alpine White



Seamless
Perfection

Laurenskerk Alkmaar

Designed by OPERA Amsterdam, Location : Alkmaar, The Netherlands, HI-MACS® Black



Shanghai Disney Children's Park

Designed by XianDai Architectural, Location : Shanghai, China, HI-MACS® Fiery Red



Three Dimensional Design Process

HI-MACS boasts a simple heating process and three-dimensional thermoplastic forming capabilities.

Dental Clinic, Taoyuan, Taiwan

Three Dimensional Design Process



Disassemble drawing for mould production

Mould production

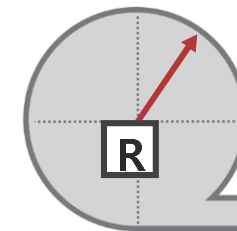
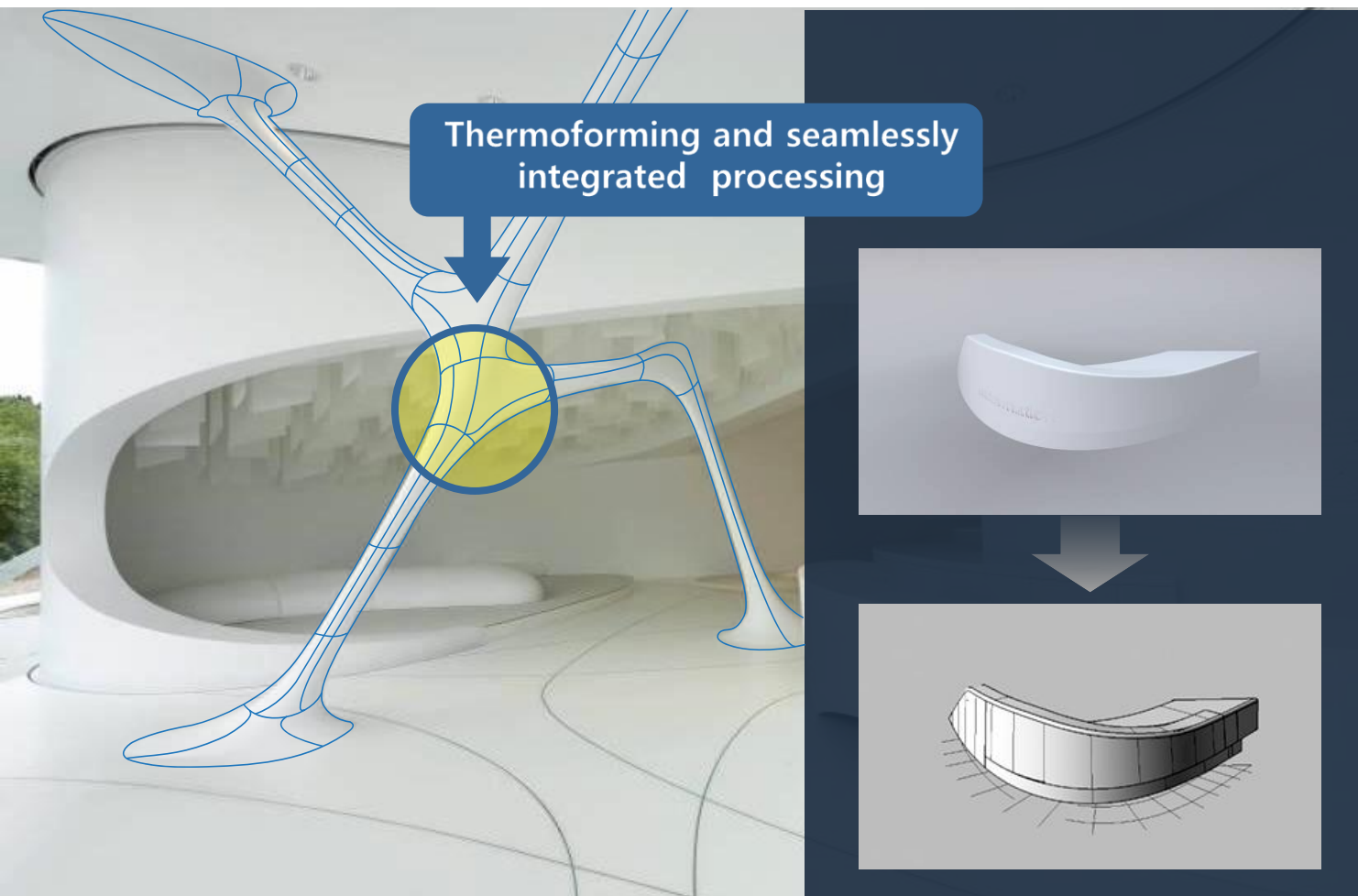
Preheating HI-MACS

Vacuum pressing

Gluing and sanding



1. Disassemble Drawing for Mould Production



Possible achievable minimum radius:

- **12 mm : 2D**

Approx. $R = 50 \text{ mm} \gg$ for Solids

Approx. $R = 100 \text{ mm} \gg$ for

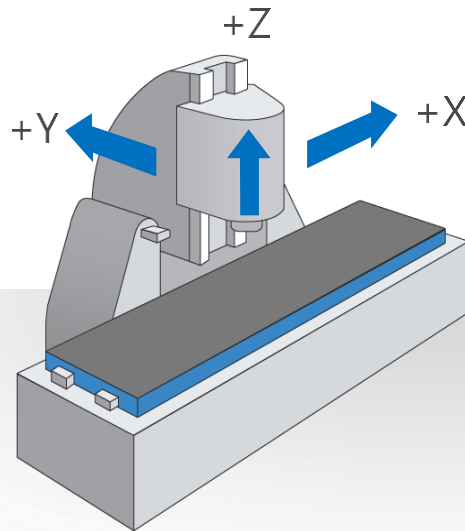
Granite

2-1. Mould production

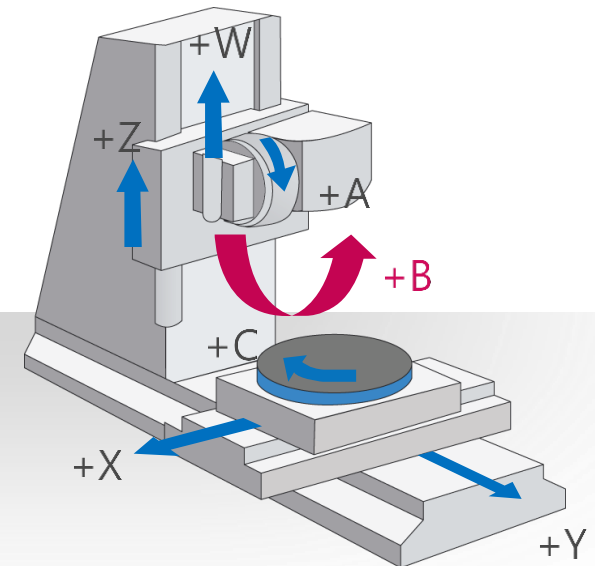


* CNC : Computer Numerical control

CNC Machine (3 Axis)



CNC Machine (5 Axis)



2-2. Mould production



* CNC : Computer Numerical control

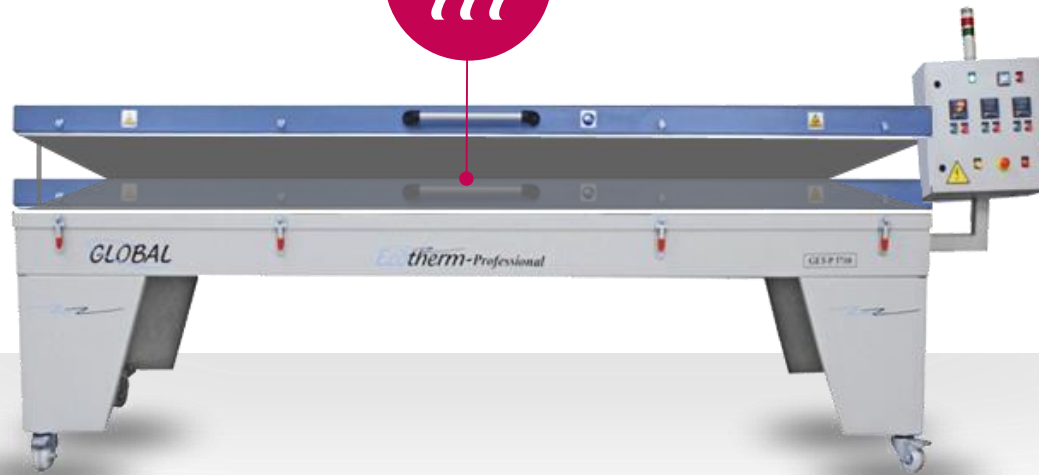
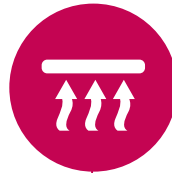
3. Preheating HI-MACS

Before heating, rebate all edges or put a radius on all edges.

Three Dimensional Design Process



Between 155°C ~175°C
10~20min Heating

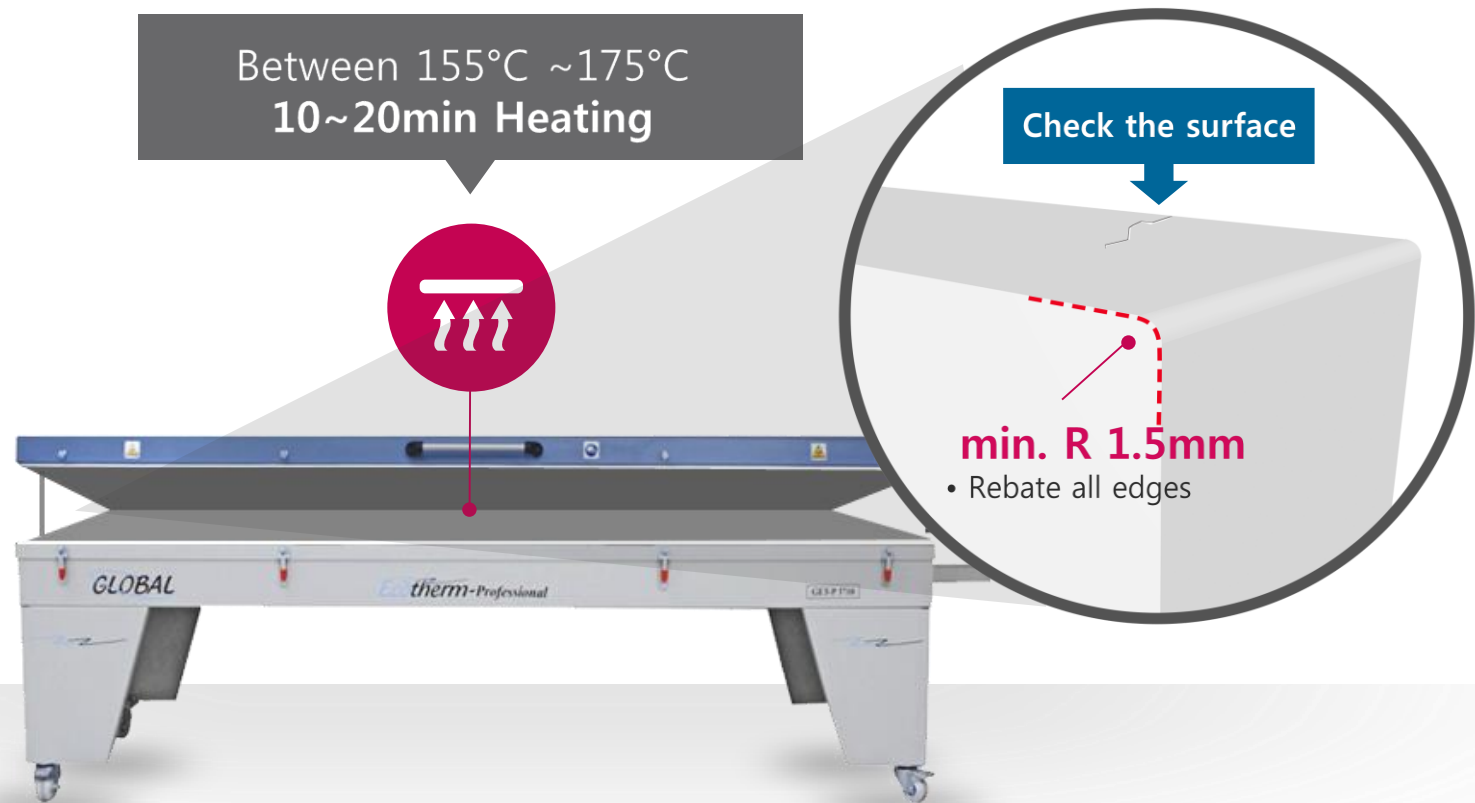


* Heating temperature should never exceed 200°C

3. Preheating HI-MACS



Before heating, rebate all edges or put a radius on all edges.



* Heating temperature should never exceed 200°C

3. Preheating HI-MACS

Before heating, rebate all edges or put a radius on all edges.

Three Dimensional Design Process



Between 155°C ~175°C
10~20min Heating



* Heating temperature should never exceed 200°C

4. Vacuum pressing

After thermoforming process, Let the work-piece cool down continuously.

Three Dimensional Design Process



Thermoform
vacuum machine



* There may appear to be a color difference when working with dark or highly pigmented colors.

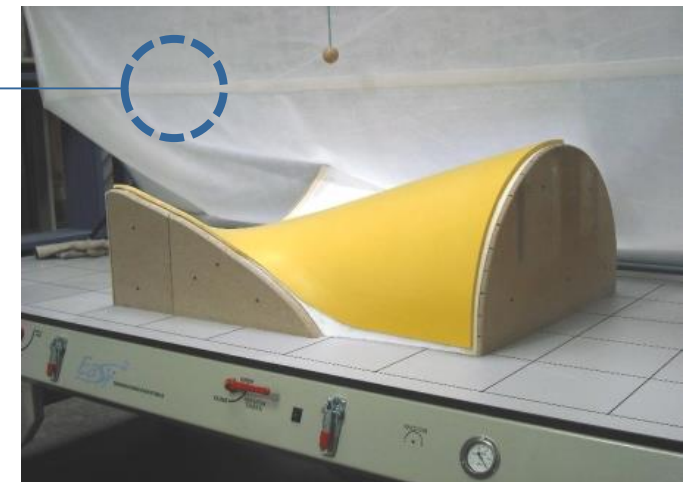
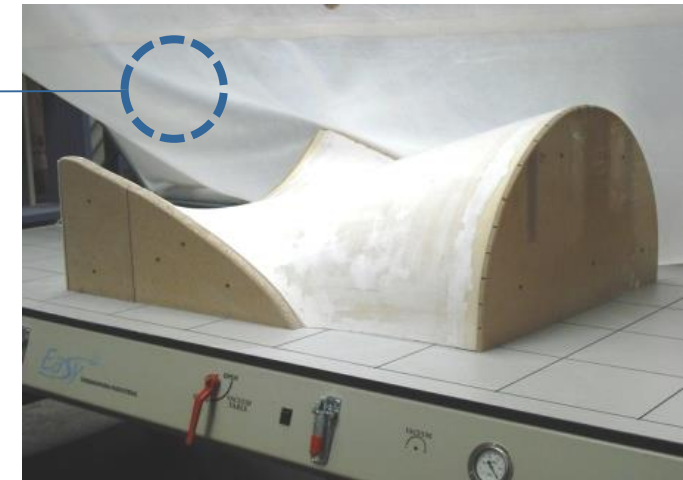
4. Vacuum pressing

After thermoforming process, Let the work-piece cool down continuously.

Three Dimensional Design Process

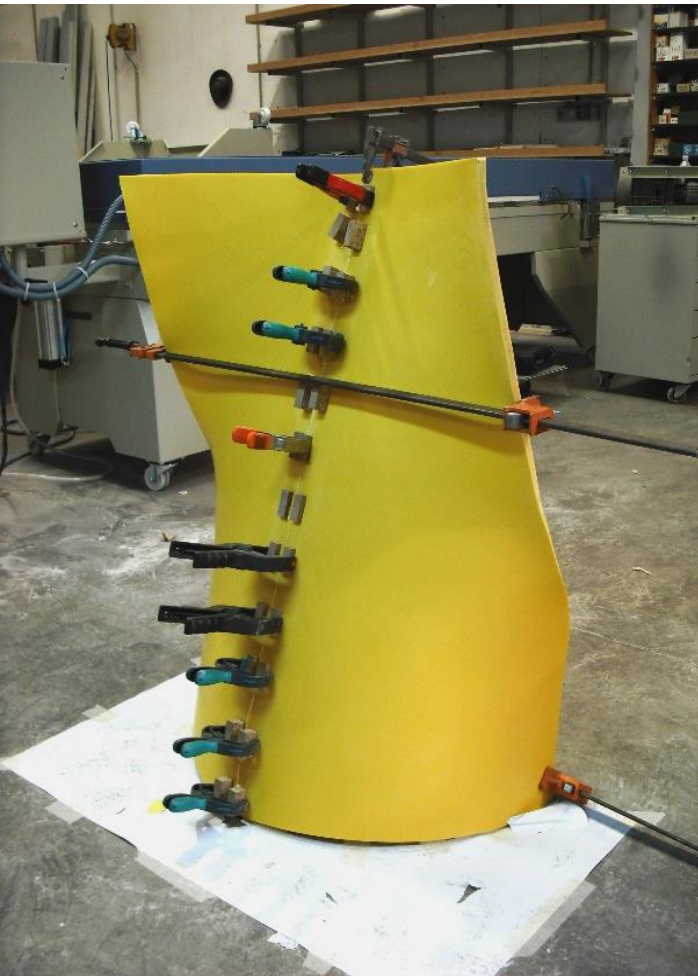


Urethane rubber sheet



* There may appear to be a color difference when working with dark or highly pigmented colors.

5. Gluing and sanding





Swimming Pool, France

Designed by Urbane Kultur Architectes, Fabrication : ADJ, France, adj.fr HI-MACS® Alpine White



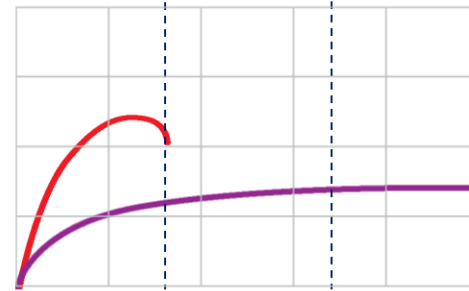
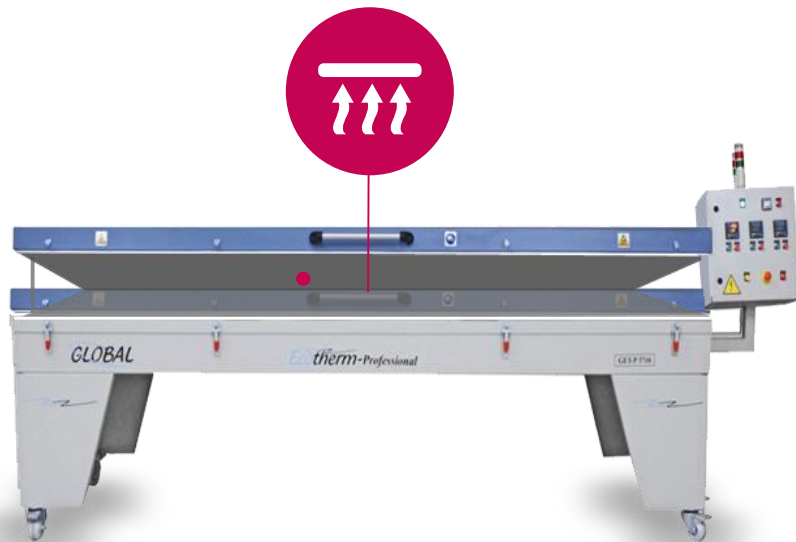
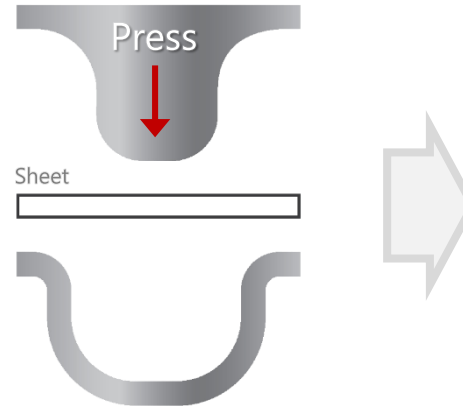
Gmünd train station, Germany

Designed by preiswerk marek architekten, Switzerland, 5D Engineering HI-MACS® Alpine White

Ultra-thermoforming HI-MACS

We dramatically improved the thermoforming properties of Solid Surface

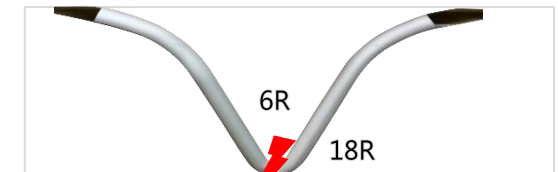
Between 155°C ~175°C
10~20min Heating



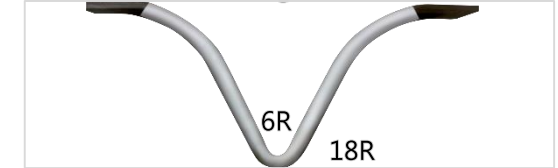
Elongation(%)

Elongation : Calculating the elongation rate of the material by measuring the length at which the specimen is stretched by 10 when the specimen with a 10cm gauge line was pulled with UTM.

HI-MACS



Ultra-thermoforming HI-MACS



The elongation rate of the 'Ultra-thermoforming HI-MACS' is more than 3 times better than that of existing HI-MACS.

We conducted a molding test for S028-color materials using the mold manufactured by LG, and there may be a deviation in moldability depending on the shape of the mold.



Dramatic Translucency

Certain colors and thicknesses of HI-MACS exhibit a special translucency when exposed to light. Various textures and patterns can be built into the material to intensify the HI-MACS.translucency effect.

Globetrotter, Munich Germany.



Solid vs Lucent

Dramatic Translucency

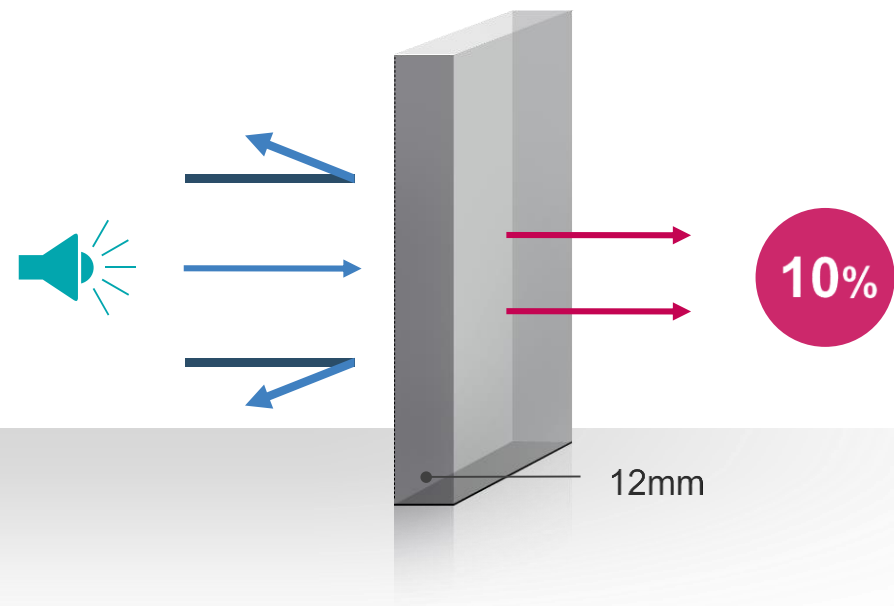
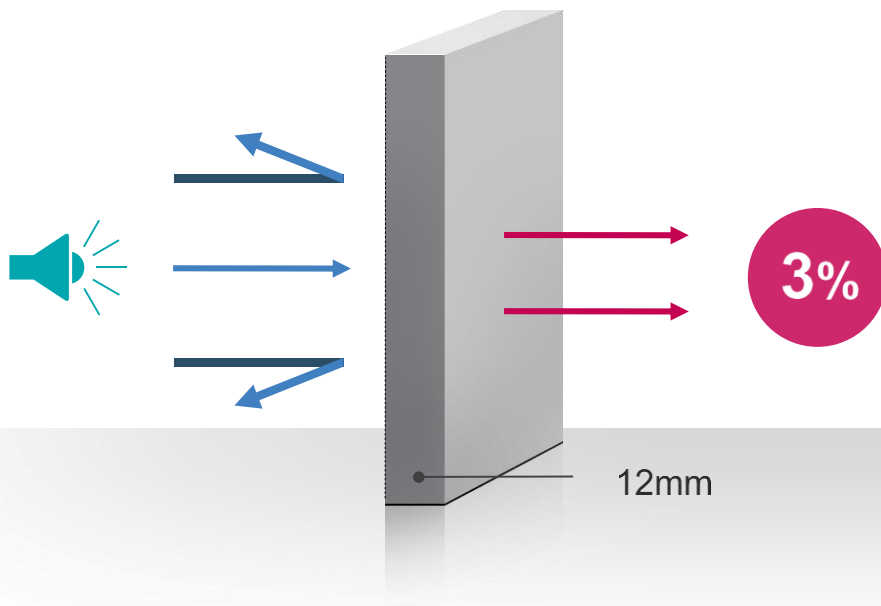
Alpine white

Solid



Opal

Lucent





Solid vs Lucent

Dramatic Translucency

Solid (CNC fabrication)



12mm



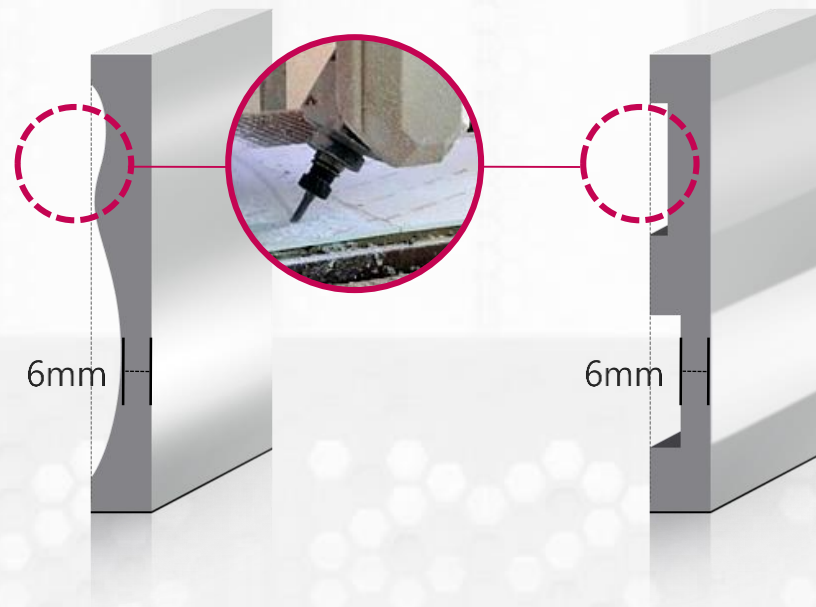
12mm



Solid vs Lucent

Dramatic Translucency

Solid (CNC fabrication)

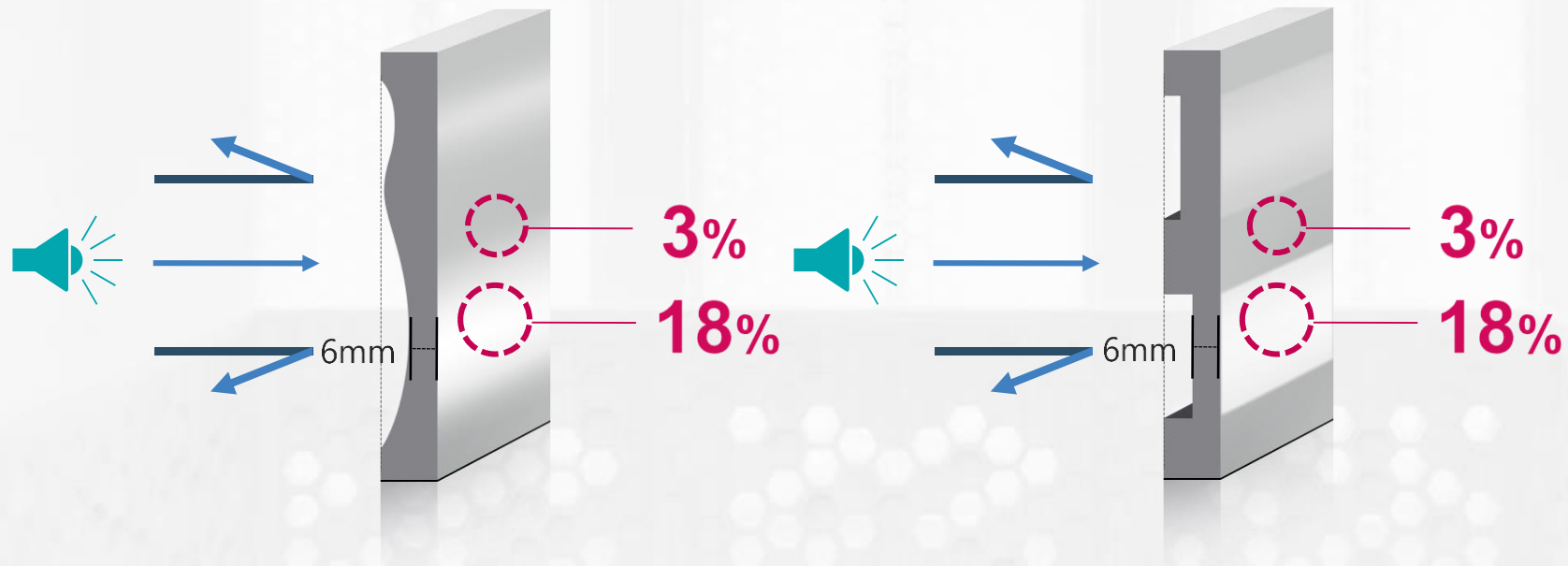




Solid vs Lucent

Dramatic Translucency

Solid (CNC fabrication)





Enhance Dental Group

Designed by Harry Poulos, Brisbane Australia, Fabrication: Aspen Cabinets, Material: HI-MACS Crystal Biege



Dramatic
Translucency



Hotel Gabriel, Paris

Designed by Axel Schoenert Architectes Associes (ASAA), Fabricated by Delseith



Dramatic
Translucency



z:in HI-MACS / 마르모 Edessa

IFC CARRIE KIDS CAFÉ

Location: Seoul Korea / Designed by Korea HI-MACS® / Material: HI-MACS® Edessa



Dramatic
Translucency

M2 Cafe Bar, Germany

Designed by Bredt und Partner GbR, Fabrication : Teamplan Josef Mayer GmbH HI-MACS® Alpine White

For more
design inspiration



| <http://www.himacs.com>

