

Solid Surface Material

HI·MACS

TDS – TECHNICAL DATA SHEET

HIMACS GRAVILLA COLLECTION

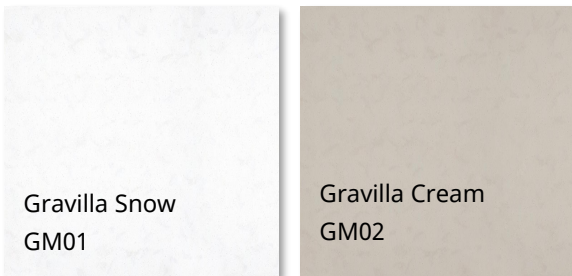


Colours belonging to the Gravilla collection exhibit a greater variation in colour, shading, and pattern than is apparent in small size samples. Even A4-size samples and full-sheet photographic images can't fully capture these variations. If possible, allow the customer to view the actual material together with seaming layout examples and have the customer sign a "declaration of understanding" to help assure that the finished countertop is consistent with customer expectations.

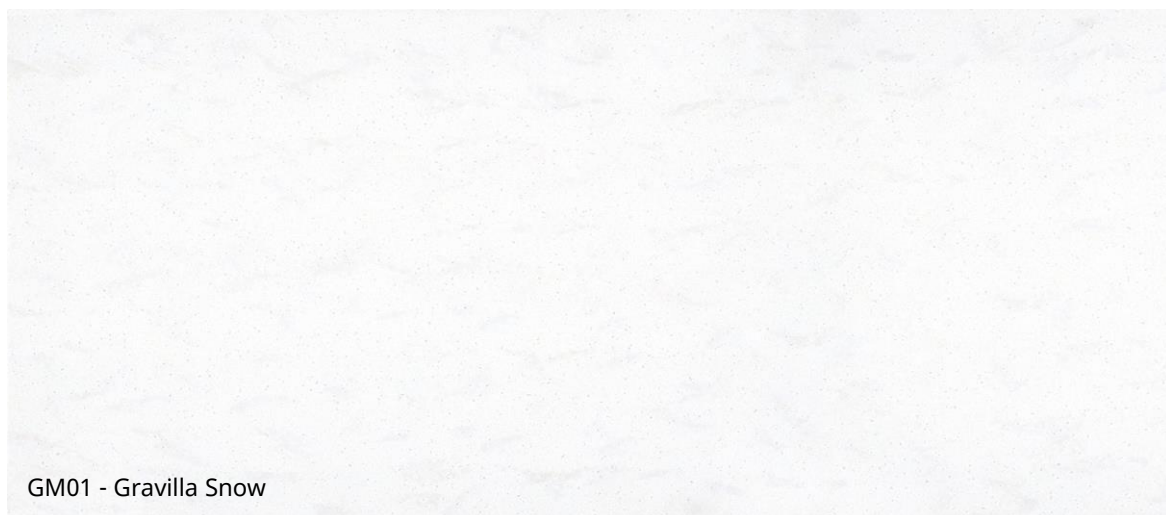
When fabricating Gravilla colours it's important to use consecutive sheets whenever there will be a field seam or a seam creating a "U"- or "L"-shaped countertop. Even with consecutive sheets it's important to visually verify alignments before beginning fabrication. In some cases, rotating one sheet 180-degrees may deliver the desired consistent or uniform alignment. In other cases, it may be necessary to sacrifice some material in order to join areas that are similar. Either approach can not only deliver a more pleasing appearance but will minimise the visibility of seams and joints.

1. Product Specifications

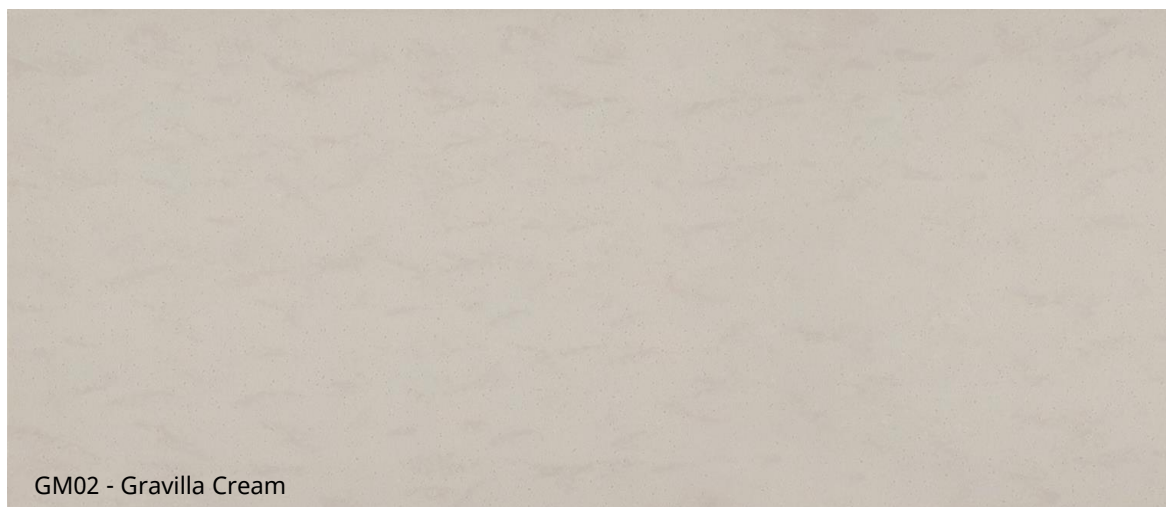
Available colours 2023



New colours 2023 Full sheet view



GM01 - Gravilla Snow



GM02 - Gravilla Cream

2. Sheet Specifications

GROUP	COLOUR CODE	COLOUR NAME	SHEET THICKNESS	SHEET SIZE (Width x Length)	m ² PER SHEET	WEIGHT PER SHEET	WEIGHT PER m ²	SHEETS PER PALLET
NEW GRAVILLA 2023	GM01	GRAVILLA SNOW	12 mm	760mm x 3680mm	2,7968	55,38 kg	19,80 kg	15
	GM02	GRAVILLA CREAM	12 mm	760mm x 3680mm	2,7968	55,38 kg	19,80 kg	15

3. Sheet & Matching adhesives

SHEET			ADHESIVE		
GROUP	COLOUR CODE	COLOUR NAME	COLOUR CODE	COLOUR NAME	PACKAGING UNIT
NEW GRAVILLA 2023	GM01	GRAVILLA SNOW	H146	AURORA BLANC	45ml / 250ml
	GM02	GRAVILLA CREAM	H032	IVORY	45ml / 250ml

4. LRV Light Reflectance Values & Colour codes (Pantone – RAL Classic – NCS)

GROUP	COLOUR CODE	COLOUR NAME	LRV	PANTONE	RAL Classic	NCS
NEW GRAVILLA 2023	GM01	GRAVILLA SNOW	80.47	11-0601 TPG ○ 12-4302 TPG △	RAL 9003 ○ RAL 7047 △	S 0502-G ○ S 1502-Y △
	GM02	GRAVILLA CREAM	62.19	12-0404 TPG ○ 13-5304 TPG △	RAL 9010 △ RAL 7044 △	S 1002-Y △ S 2005-Y30R △

5. Light Transmittance Value

According to test method
ASTM D1003

*Measuring Device:
NDH-5000 Hazemeter



	M603 PAVIA 12 MM	S028 ALPINE WHITE 12 MM	S028 ALPINE WHITE 6 MM	S006 ARCTIC WHITE 12 MM	S006 ARCTIC WHITE 6 MM	S302 OPAL LUCENT 12MM	S009 SOLID CREAM 12MM	S005 SOLID GREY 12MM
Transmittance Value (in %)	5.68	0.03	1	3.23	9.02	9.64	4.89	0.42
Haze	88.57	100	87.35	89.55	87.9	89.97	89.16	90.43

Haze definition:

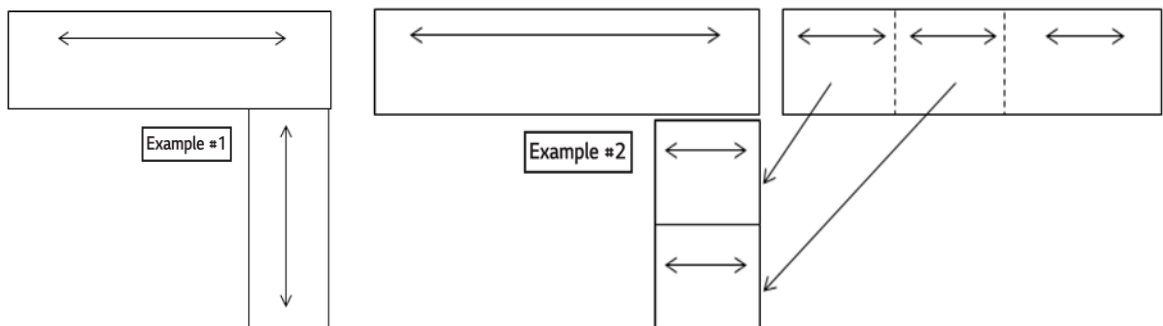
Transmitted light can be divided into straight transmitted light and diffused transmitted light. Diffused transmitted light causes a cloudy appearance, so high Haze reduces transparency.

$$\text{Haze} = \frac{\text{Diffraction transmittance}}{\text{Total transmittance}}$$

6. Fabrication

6.1. Sheet to Sheet bonding flow:

Fabricating an "L-shape" or "U-shape" countertop presents other challenges. Depending on the character of the HIMACS material, in some cases you may wish to have the "extension(s)" placed perpendicular to the primary surface (Example «1»). In other cases, you may find that placing the "extension(s)" on the same plane as the primary surface works best (Example #2). There's no way to determine which method will work best with any colour other than to visually evaluate the configurations.



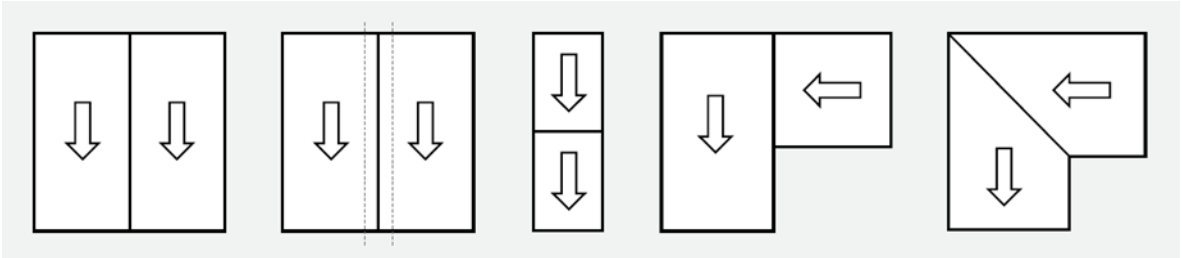
Note:

HIMACS adhesive is not developed as filler for repairs. In the case of damage to the surface it is strongly recommended to make a plug repair if possible (tools are available on the market – please contact your local technical support).

Before and during the gluing process between the sheets, check the best possibility of according to the fluidity of the design. Whatever design is chosen visual assessment is the only way to determine the best colour combination. We strongly advise the fabricator to confirm that the purchaser and the end user understand these considerations before proceeding.

Recommendation :

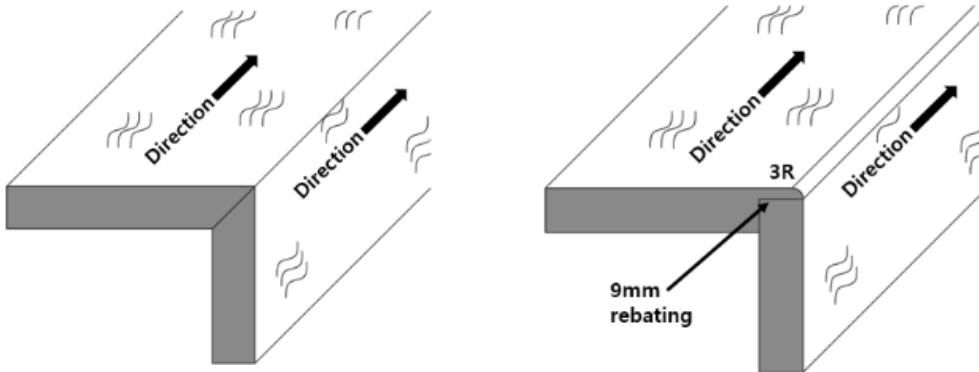
Gravilla is equivalent material as any other HI-MACS" product, but it requires special consideration in order to fabricate an aesthetically pleasing finished product. We strongly advise the fabricator to confirm that the purchaser and the end user understand these considerations before proceeding.



Note:

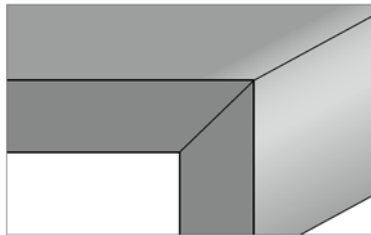
It is Fabricator's responsibility to find the best assembling arrangement of the veining layout as samples show above.

Recommended edge design

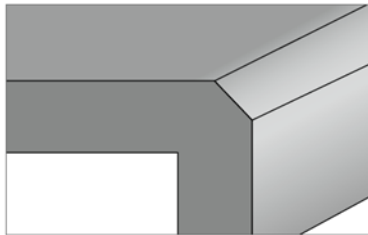


6.2. Edge bonding flow:

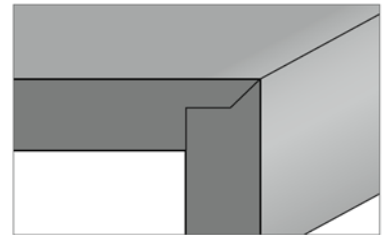
To let the pattern flow around the edges a 45° angled cut of the edge or an alternative rebate is one of the best solutions.



Standard V-grooved



Standard with bevel



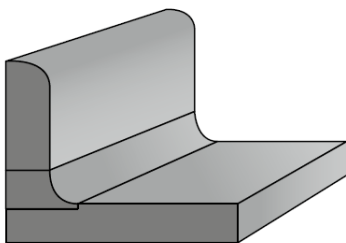
Standard V-grooved and angled

For the bonding process of the edges please follow the instructions of edge treatments.

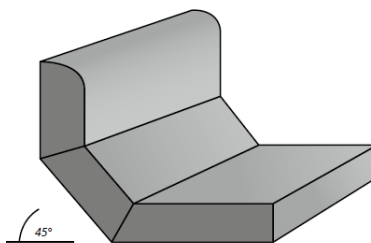
HIMACS strongly advise the fabricator to confirm that the purchaser and the end user understand these considerations before proceeding whilst best to prepare a sample and let this design sign off.

6.4. Backsplash flow:

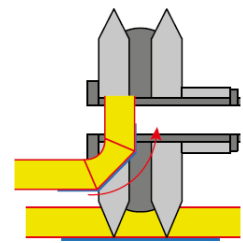
To let the pattern flow around the edges a 45° angled cut of the edge or an alternative rebate is one of the best solutions.



V-grooving



V-grooving



V-Groove



Assembled

When preparing a curved upstand or downturn, customers may not accept the result. One may not compare, though with UNI colours mostly used in the kitchen market.

A downturn or an upstand may best achieve with a 45° angle or a profiled folding option – see picture 3 (V-grooving -p14).

7. Sanding (finishing)



Standard recommendation

FINISH-LEVEL	MATT-FINISH		SEMI-GLOSS-FINISH		HIGH-GLOSS-FINISH	
HIMACS colour family	for all colours		for all colours		for all colours	
Sanding steps	micron-sandpaper	grid-sandpaper	micron-sandpaper	grid-sandpaper	micron-sandpaper	grid-sandpaper
Step 1	100/80 µ	150/180 µ	100/80 µ	150/180 µ	100/80 µ	150/180 µ
	take dust away		take dust away		take dust away	
Step 2	60 µ	220	60 µ	220	60 µ	220
	take dust away		take dust away		take dust away	
Step 3	"useit®" Superpad S/G Scotch Brite™ Maroon 7447	280	40/30 µ	280/320	30 µ	280/320
	take dust away		take dust away		take dust away	
Step 4	industrial paper towel	"useit®" Superpad S/G Scotch Brite™ Maroon 7447	"useit®" Superpad S/G Scotch Brite™ Maroon 7447	380/400	15 µ	380/400
	take dust away		take dust away		take dust away	
Step 5		industrial paper towel	industrial paper towel	"useit®" Superpad S/G Scotch Brite™ Maroon 7447	9 µ	600/800
			take dust away		take dust away	
Step 6				industrial paper towel	Finesse-it™ Finish- component	1200
			take dust away		take dust away	
Step 7						1500
						1800
						2500

8. Thermoforming

To prepare the workpieces, follow the standard thermoforming process (for more information's see FM22EU, 7.15 Thermoforming)

For Thermoforming process to recommend best by using a pre-heating oven with double sided heating plates.

Heating Temperature:

155°C - 175°C



Heating Time:

12 - 30 min.



The heating time is equivalent to the general heating time of HIMACS products for the thermoforming process.

- The classification of a minimum radius for GRAVILLA is $\geq 200\text{mm}$.

Be aware that any undertaking of recommended radii can cause some colour change or create some cracks.

For further details of thermoforming process see also our FM22 EU, section 7.15 THERMOFORMING.

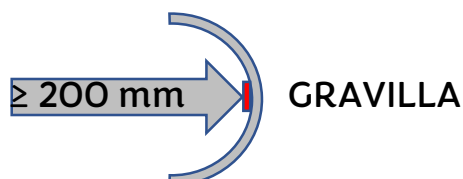
For any technical inquiry contact your local technical support.

For more detailed thermoforming equipment or any thermoforming accessories please contact global@nabuurs.com or visit the web-site: www.globalvacuumpresses.com

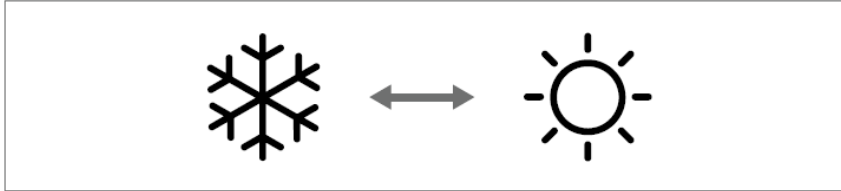
Note:

Be aware that the veining may change in size when turning into a curve.

As smaller the radius becomes as wider the veins gets but more cautions to be looked for when using dark colors to avoid unexpected whitening.

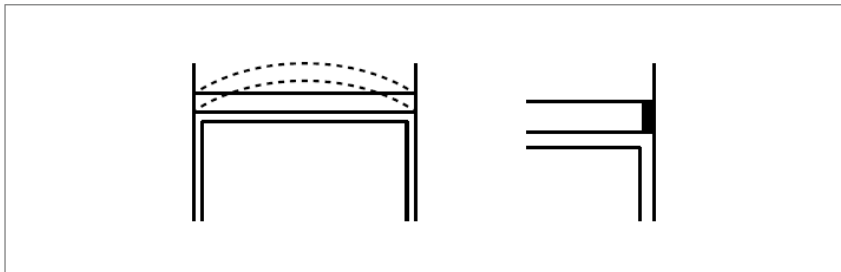


9. Thermal Expansion



Sufficient space should be given to compensate for expansion or contraction at the time of installation since this product may expand or contract depending on the temperature.

Allow 1.5 mm per linear meter for expansion and contraction.



Expansion coefficient HIMACS according to norm DIN EN 14851:

$$\Delta t = \text{ca. } 38 \times 10^{-6} / \text{K}$$

10. Quality Check

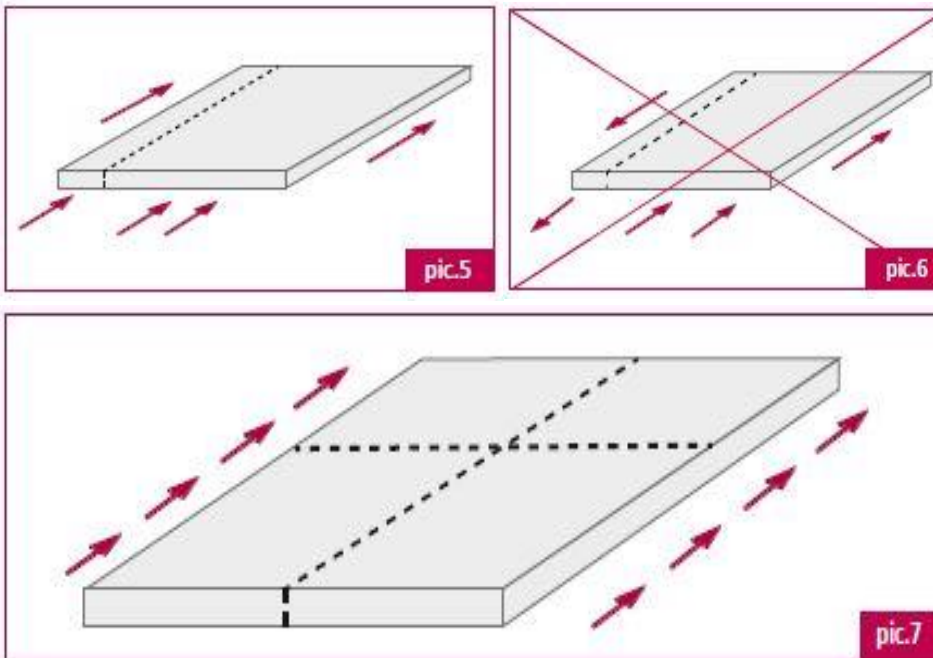
- Check any fabricated item on quality aspects before leaving the workshop.
- In case of any mistakes, it easily can be repaired in the workshop and keeps the time of re-work very low.
- Any damage or any mistake which will be recognized later will make the fixing much more expensive.

Important information:

The 15 Year Limited Installed Warranty does not cover any failures due to fabrication or installation mistakes.

11. Summary of important information :

When using several sheets for doing one job ensure a continuous flow of sequential numbers as well as the same production flow. Do not turn one sheet into a different direction from the next or opposite side (**no turn** of any sheet by 90°, 180° or 270°).



- Gravilla is equivalent material as any other HI-MACS" product, but it requires special consideration in order to fabricate an aesthetically pleasing finished product. We strongly advise the fabricator to confirm that the purchaser and the end user understand these considerations before proceeding.
- The 15 Year Limited Installed Warranty does not cover any failures due to fabrication or installation mistakes.
- It is Fabricator's responsibility to find the best assembling arrangement of the design, layout as samples show above.
- Design may can change in size when turning into a curve. As smaller the radius becomes as wider the veins gets but even more cautions to be taken, when using dark colors to avoid unexpected whitening.

LX HAUSYS Europe GmbH
Lyoner Str. 15
60528 Frankfurt am Main
Germany

