HIMACS Structure & Installation

HM2160

Version : 21V3

Updated : December. 2021

Introduction

This section guides the sub structure, overhang and installation for HIMACS sheet.

Overview

HIMACS sheet and/or most of solid surface sheets need to be supported to avoid any kind of crack and bending. HIMACS sheet have a good hardness. However, the wide width and long span without support will make bending to down side. And the seam line can't cover long service life for your customer without proper supporting. Therefore, the minimum general method to get the stable sub structure and installation will be addressed in this section.

Note !

1. *This guideline has been created to provide technical information for successful fabrication and installation of HIMACS, and it is intended to be used in a safe environment considering their own discretion and risk by who has technical skill for fabrication and installation of HIMACS.*
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Contact LX Hausys HIMACS territory manager or distributor of your market for specific questions and information.

1. Sub structure

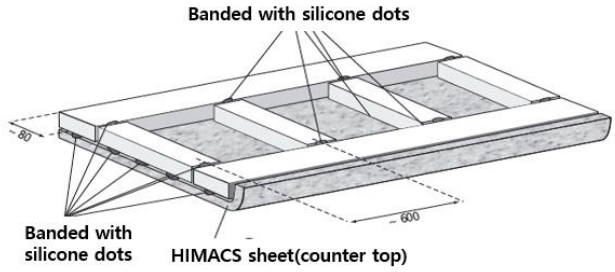
Depending on the application, the following support materials are recommended

- Steel/stainless steel profiles
- Aluminum/aluminum profiles
- Moisture-resistant MDF, Moisture-resistant plywood or Moisture-resistant
- Particle board
- Plasterboard or other alternative constructional boards

Ensure the sub-construction is resistant according to its requirements and specifications needs.

When used as a kitchen work surface, a frame substructure is strongly recommended. A full sub-structure can, but need not, be used.

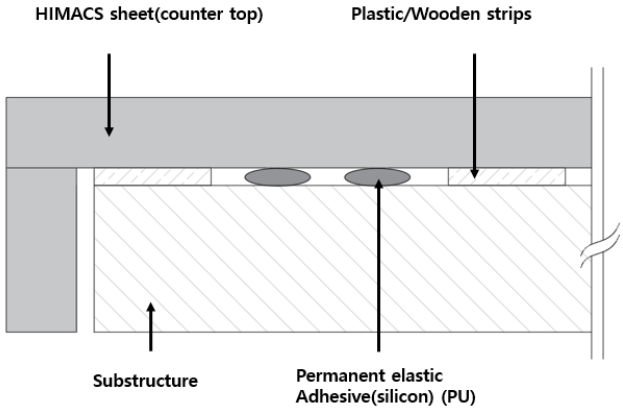
Fig. 1-1. Sub structure



Process

- Adjust all substructures with permanent elastic adhesive or with permanent elastic PU adhesive to the back of the HIMACS sheet; preferably in dots at a maximum spacing of approximately 100 mm or accordingly to the construction needs.
- Use a mirror tape in between the dots to avoid long waiting time of the silicone or PU curing time.
- The use of a mirror tape with a foam base is also practical as it ensures an even placing of the sub-construction without any uneven moves.
- When to expect some weight to be place on the surface at a later time some plastic or wooden strips may be placed between HIMACS sheet and sub-construction to avoid any unexpected move or warping of the top due to heavy weight placed for a long time on one position.

Fig. 1-2. Sub structure and installing



- Sub-construction strips made in wood for a standard kitchen counter should have at least a width of approx. 80 mm and a material thickness of approx. 26mm; or accordingly to the calculation of static needs of the used material.
- Rebate for reinforcement strips should also be taken into the material preparation work for the sub-construction application and pointed out when special parts may outsourced to metal work.
- Be aware that the sub-construction will be different with reference to the material thickness, its use and its application. Ensure to take each single point of necessary job issue into consideration.

Note !

- *It is fabricators responsibility to choose the right construction solution for each single project with its HIMACS material performance as well as its project needs to choose the right materials and fulfil the foreseen requirements.*
- *LX Hausys recommending discussing the right construction performance with the Project Management of LX Hausys Europe GmbH in advance or request further Technical Support.*

2. Overhang

Sometimes a countertop design features an overhang that extends beyond the base cabinets. Following guides are for 12mm HIMACS sheet

- Overhangs up to 50mm

  : No additional support required.

- Overhangs up to 150mm

  : Overhangs between 50mm up to 150mm deep require a no additional support if there is no load(zero load). However, if there is load, second layer of HIMACS sheet beneath the countertop is needed. The second thickness must continue under the countertop and be anchored to the base cabinet(s).

- Overhangs up to 300mm

  : Corbels should be used at every 600mm distance for widths over 150mm or when unusual loading conditions are present or can be expected. A proper fabricated edge treatment will provide additional strength for the overhang and will conceal the supporting material. One of the easiest ways to produce a drop edge is to simply stack layers of HIMACS on the underside of the sheet. And, this method is suitable for Sold and Granite color family. 2 layers (24mm) or 3 layers (36mm) stacking are general.

- Overhangs up to 600mm

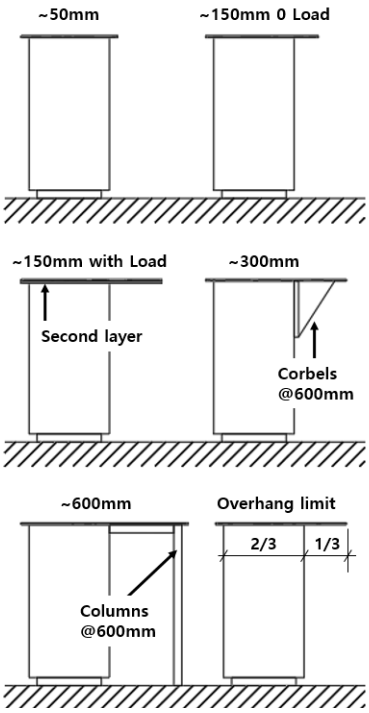
  : Supporting legs or columns should be used at every 600mm distance for widths over 300mm or when unusual loading conditions are present or can be expected. A proper fabricated edge treatment will provide additional strength for the overhang and will conceal the supporting material. One of the easiest ways to produce a drop edge is to simply stack layers of HIMACS on the underside of the sheet. And, this method is suitable for Sold and Granite color family. 2 layers (24mm) or 3 layers (36mm) stacking are general.

Table. 2-1. Overhang

Overhang distance	Additional support	Conditions
50mm	No needed	Any condition
50~150mm	No needed	Without load
50~150mm	Additional layer of HIMACS sheet	With load
150~300mm	Corbels at each 600mm	Any condition
150~600mm	Supporting leg or columns at each 600mm	Any condition

- To avoid failure in an overhang, remember to always allow maximum 1/3 of the width to overhang while two thirds of the width should be supported. If this rule cannot be followed, you must install corbel brackets on the overhang for necessary support.
- When doing so, do not screw the brackets directly into the HIMACS material, rather, install a piece of hardwood in your perimeter support or lattice support and use screws or fastener that will not surpass the thickness of the wood. When using metal, use silicone between junction points. A full substrate on an overhang with a web support over the cabinets is an acceptable method of support too for overhangs.
- Choose the right method and fittings for your individual project needs to fulfil the necessary requirements

Fig. 2-1. Overhang



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