

Caesarstone Solaris™ Technical Guide





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1. Introduction

Caesarstone introduces the Solaris™ Collection. For the first time, Caesarstone has combined the best of all it has to offer by taking the luxury of its much-loved surfaces to the outdoors. Its ground-breaking Solaris Collection provides the convenience of stain-resistant, easy-to-clean surfaces, while innovating a highly durable material proven to withstand UV rays and the most extreme environmental conditions over the long term. The new Solaris Collection provides an answer for consumers' desire to cook, dine and entertain comfortably in an outdoor kitchen, come rain, snow or shine.

Caesarstone Solaris performs the same as traditional Caesarstone in most aspects relating to fabrication, installation, repairs, and care & maintenance. Therefore, in most cases, the same procedures, tools and equipment can be used for both products.

There are, however, some minor differences, which are specified in this technical guide. Fabricators and installers should use these guidelines in addition to the Caesarstone *Fabrication & Installation Guide* for optimum work with Caesarstone Solaris.

Please note that Caesarstone Solaris is not suitable for flooring and wall cladding.



2. Slab Data

2.1 Finishes

Caesarstone Solaris is available in two finishes: Concrete and Honed.

2.2 Dimensions & Weight

Length	3040 mm (120") +/- 10 mm ($\frac{3}{8}$ ")	
Width	1440 mm (56 $\frac{1}{2}$ ") +/- 10 mm ($\frac{3}{8}$ ")	
Thickness	20 mm +/- 1 mm	
Weight	189-210 kg/slab 43-48 kg/m ²	417-463 lb 8-10 lb/ft ²

- **Note:** Imperial measurements in this guide are approximate.



2.3 Slab Label

- The Caesarstone Solaris slab label has a blue border.
- The rest of the slab label is the same as for traditional Caesarstone.



3. Fabrication Guidelines Specific to Caesarstone Solaris

Caesarstone Solaris contains up to -90% crystalline silica. Fabrication of Caesarstone Solaris generates respirable dust that is dangerous to your health. For more information about this danger and means of protection that you should implement please see the *Caesarstone Good Practice Guide - Steps to Avoid Health Hazards Related to Crystalline Silica Dust* at: mos.caesarstoneus.com.

- Caesarstone Solaris slabs offer fabricators all the same advantages of easy fabrication as traditional Caesarstone. Due to the different composition, Caesarstone Solaris slabs give off a smell during fabrication that is different from traditional Caesarstone; and it may be necessary to exert slightly more pressure when working manually.
- When cutting 45° miter edges, do not exceed a feed rate of 1 m (40") per minute.
- Set the RPM at 1600.

💡 Measuring can also be easily performed by digital templating, which significantly increases the efficiency, accuracy and speed of templating.



4. Installation Guidelines Specific to Caesarstone Solaris

4.1 General

- Support Caesarstone Solaris on a full substrate of concrete, brick or cement board. Do not use wood as it can swell in an outdoor environment.



4.2 Grill Installation Guidelines

- The grill should be supported by a concrete or brick structure or a dedicated frame, not by the Caesarstone Solaris.
- Create seams for all inside corners around the grill or on appliance cutouts. A 5 mm ($\frac{3}{16}$ ") seam is recommended for each corner seam (see diagrams A and B).
- Create 5 mm ($\frac{3}{16}$ ") seams that follow the grill edges.
- Provide a minimum gap of 15 mm ($\frac{5}{8}$ ") between the grill and the edge of the cutout.
- Do not completely surround the grill with the surface - at least one side must be open (see diagram B).
- Use of ceramic heat resistant tape and heat resistant silicone on the surround of the grill/appliance cutout is strongly recommended.
- Ensure that the grill pane is located above the level of the Caesarstone Solaris surface.

Diagram A:

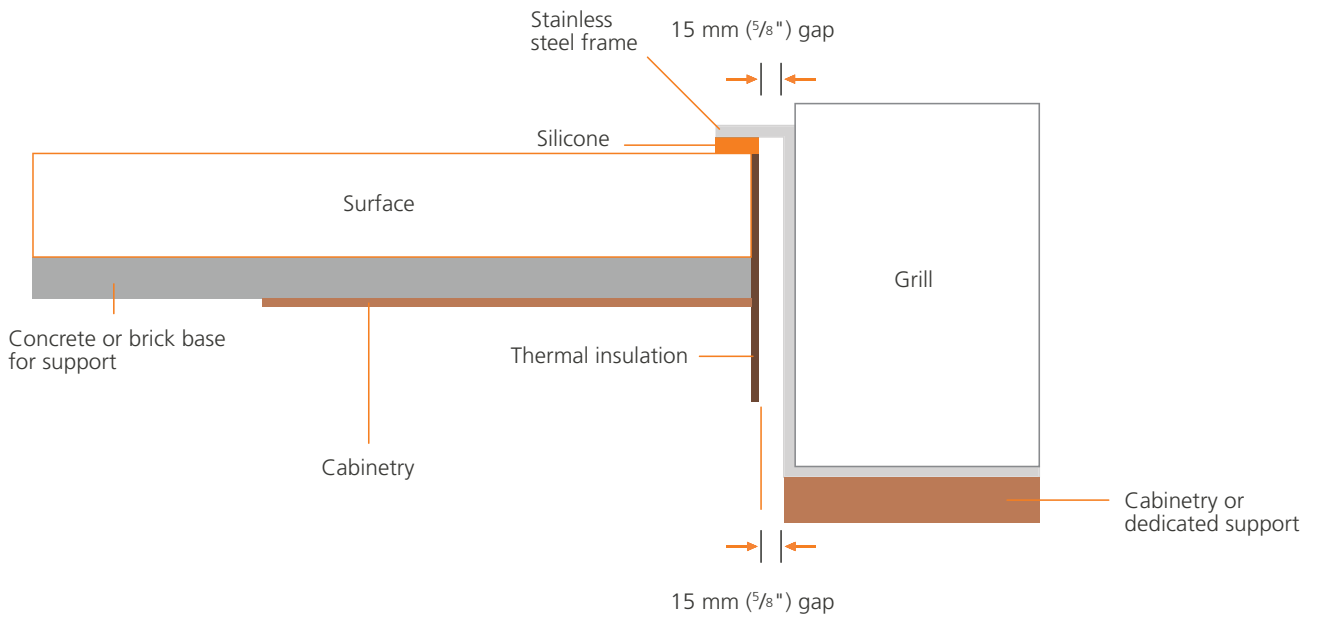
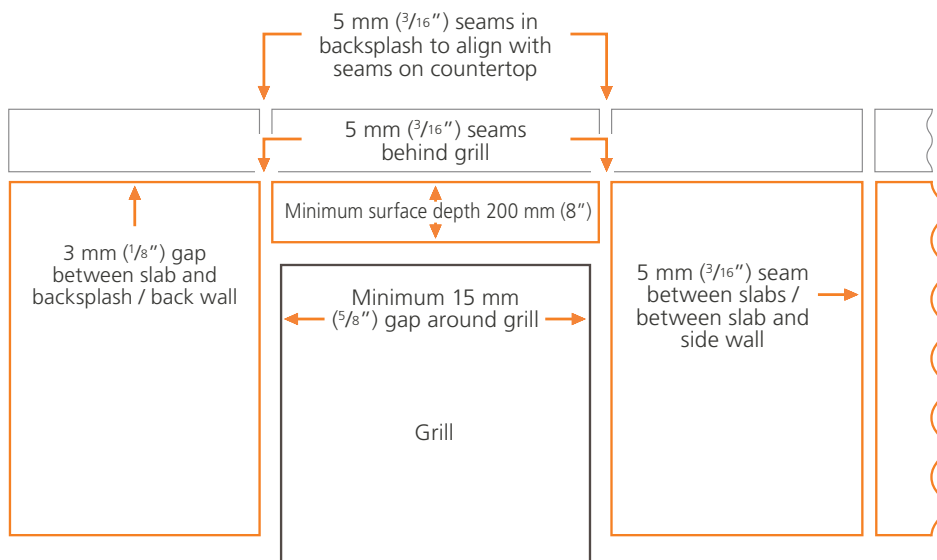


Diagram B:



- If there is a wall behind the grill, the surface depth between the grill and the wall must be at least 200 mm (8").

5. Adhesives

- To seam Caesarstone Solaris use 100% silicone suitable for outdoor use or AKEMI® MS-Adhesive Sealant, without silicone.
- To connect Caesarstone Solaris to the substrate or to install as a backsplash use thinset (latex-modified thinset such as LATICRETE® 254 Platinum is preferred).
- To glue edges, use an adhesive suitable for outdoor use such as AKEMI® Everclear 225 or AKEMI® Hyperclear.
- Denatured alcohol is recommended for cleaning during installation. Use of acetone is forbidden on Caesarstone Solaris.
- Thoroughly clean areas to be joined with denatured alcohol.
- Apply a layer of protection such as beige masking tape. Do not use blue painter's tape as the adhesive in the tape may react chemically with the silicone and damage the surface. Any tape used should not be left on the surface for longer than the working period.

Note: Before using, please read and follow the adhesive manufacturers' instructions. Pay attention to the guidelines regarding weather and temperature conditions at the time of application.

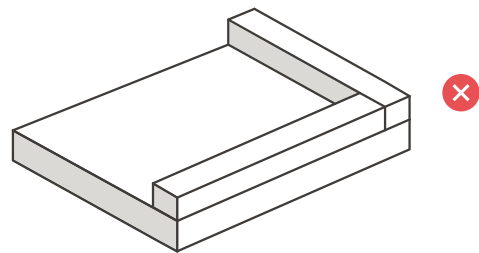
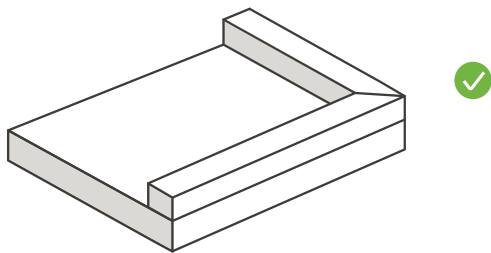
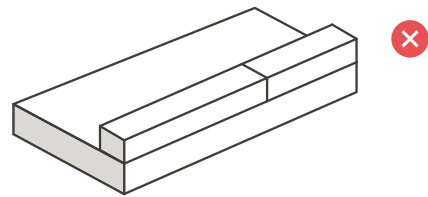
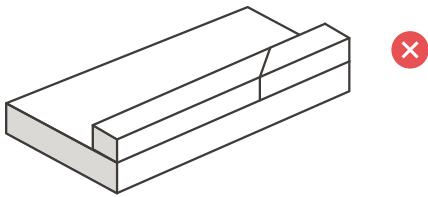
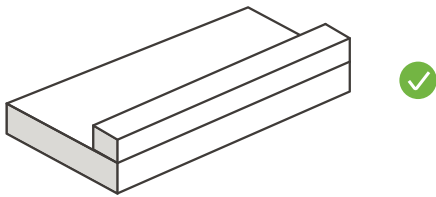
5.1 Gluing Edges

To create edges thicker than the slab thickness, use one of the following methods:

- Create 45° miter edges.
- Glue a strip of 20 mm ($\frac{3}{4}$ ") thickness and at least 70 mm ($2\frac{3}{4}$ ") depth underneath the surface as shown below:




-
- Create joins in laminated edges as shown in the diagrams below:



6. Grill Type & Operation

- Do not use charcoal grills; the heat range cannot be regulated and embers may damage the surface.
- Do not use high-powered grills that reach extremely high temperatures as this may damage the surface or backsplash.
- Do not operate grills at temperatures above 700°F (370°C); although this is not a surface temperature limit, operation at extreme temperatures may cause damage or failure.
- Do not use self-cleaning options in grills; this setting may reach up to 1000°F (538°C).

 Do not use the grill if snow or ice is on the surface. Remove the snow or ice and warm the grill slowly for at least 10 minutes to reach the required cooking temperature.

7. Care & Maintenance

Care & maintenance, and stain removal for Caesarstone Solaris are the same as for traditional Caesarstone. In addition, we recommend the following to keep your Caesarstone Solaris looking its best:

- Cover the surface when not in use.
- Do not leave metal objects on the surface as they may cause rust stains.
- Do not use deep fat fryers and turkey fryers on the surface.
- Clean any stains or residue as soon as possible to prevent them from drying on the surface.
- Use of acetone is forbidden on Caesarstone Solaris.

8. Standards & Certificates



ILGBC



USGBC



GREENGUARD GOLD



GREENGUARD



NSF



ISO 9001:2015



ISO 14001:2015



ISO 45001:2018
OHSAS 18001:2007



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9. Technical Data

PROPERTY	RESULTS
Flexural Strength ¹	>55 MPa
Freeze-thaw Resistance ²	No obvious damage after 150 freeze-thaw cycles
Bulk Density ³	>2.1 gr/cm ³
Water Absorption ³	<0.6% (per 10 days absorption)
Impact Resistance	>9 J
Stain Resistance ⁴	Pass
Chemical Resistance ⁵	Pass
Linear Thermal Expansion ⁶	30°C-100°C: 3.0-5.0 x 10 ⁻⁵ per °C
Thermal Conductivity	1.45-1.55 W/(m·K)
Thermal Shock	No obvious change Change in mass: -0.01% to 0.04% Change in flexural strength: -2.7% to 7%
Boiling Water Resistance ⁷	No effect
UV Resistance	Color change of up to 4 delta E units may occur in a period of 5 years of external use ⁸
Surface Burning ⁹	Class A

1. based on ASTM C880/C880M-15

2. based on ASTM C1026-10

3. based on ASTM C97/C97M-15

4. based on IAPMO z124 5.11

5. based on IAPMO z124 5.15

6. based on ASTM C372-94

7. based on ANSI NEMA LD3-3.5

8. estimated value

9. based on ASTM E84-19

