The sophisticated raw materials used to make DEKTON can also be used in the production of quartz, glass and porcelain.

In mere hours and through a unique technological process, DEKTON reproduces what nature has taken thousands of years to produce. The result is a slab with exclusive technical features and aesthetics, with endless applications for both indoor and outdoor use.

Due to its properties, DEKTON is a unique material in the world, as it has the highest quality and technical characteristics among the different existing surfaces in the market.

SCIENCE AND TECHNOLOGY HELPS US TO DEVELOP NEW MATERIALS THAT IMPROVE LIFE IN OUR HOMES.
**PROPERTIES**

From the outset, DEKTON has been designed so it can be used on almost all existing applications in regard to construction surfaces.

Currently its main features are as follows, although new generations of DEKTON that are being developed will mean it can be used in other types of more specialised applications.

<table>
<thead>
<tr>
<th>Low Water Absorption</th>
<th>Colour Stability</th>
<th>Dimensional Stability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abrasion Resistant</td>
<td>Stain Resistant</td>
<td>Resistance to Freezing and Thawing</td>
</tr>
<tr>
<td>Superior Mechanical Resistance</td>
<td>Maximum Resistance to Fire and Heat</td>
<td>Fireproof Material</td>
</tr>
<tr>
<td>Highly Scratch Resistant</td>
<td>Highly UV Resistant</td>
<td>Suitable for Constant Contact with Water</td>
</tr>
</tbody>
</table>

**CHEMICAL COMPOSITION**

This product does not contain resins or organic additives, so no polymerisation reactions are used to produce it. The chemical composition of the product is totally inorganic.

Different formulas are used depending on the type of product to be obtained, this means that the final chemical composition can vary without this affecting the physical or chemical properties.

One half of the final chemical composition of DEKTON is as follows: silico-aluminates, amorphous silica, crystalline silica, zircon and inorganic pigments. The content of crystalline silica in all colours and formula will always be below 11% in weight.

The product is classified with TARIC code: 6914.90.00.90. However, according to its technical features, it belongs to Group Bla according to EN 14411:2006, for tiles for flooring applications for both indoor and outdoor use.
MANUFACTURING PROCESS

RECEPTION AND PREPARATION OF RAW MATERIALS
At the very start of the process, the quality of the raw materials is controlled to check their suitability. All raw materials are stored separately to prevent cross contamination. Raw materials are transported by a system of conveyor belts, from their location to a series of hoppers or purification systems designed exclusively for this process.

GRINDING AND STANDARDISATION
From the hoppers or purification systems, the DEKTON formula is transported to a wet grinding process, in which different raw materials are mixed in a certain ratio and ground to a specific particle size.

This particle size fully determines the speed and process of the chemical reaction which results in DEKTON. It also determines the final properties of the product. This mixture is stored separately before use, for a certain settling period.

PIGMENTATION
The pigmentation process consists of a complex systems of mixers, thinners and agitators. This system is capable of mixing, depending on the colour/effect to be developed, inorganic pigments with the rest of the DEKTON formula. These pigments are also part of the chemical reaction, which results in DEKTON, therefore the quality control of its chemical composition is very extensive and laborious.

ATOMISATION
The already coloured DEKTON, is dried by atomisation to obtain a specific size and shape of the granule, and a particular moisture.

The various powders obtained are stored in separate silos. In this case, the moisture controls the fluidity of these small granules, enabling them to be deposited in the different receptacles that feed some of the subsequent decoration systems, and flow between the channels feeding other decoration systems or that permit their movement during mixing systems.

DECORATION SYSTEMS
Through various devices, which are unique for their design and function, these small granules generated in the previous section, will be carefully positioned on different parts of a belt, forming a continuous slab. These decoration devices obtain the different aesthetic effects.

These effects can be produced throughout the entire volume of the slab or only on the surface. In total, in the first phase of the production process, there are 16 different decorating systems that can work alone or simultaneously, or even in groups, resulting in a highly versatile design.

SHAPING SYSTEM
The continuous slab is separated into different fragments, which then create the final slab format. These fragments are ultra-compacted at very high pressure. To do this, a unique press was designed for its capacity to compact and dimensions.

The result of this process is to bring the small coloured granules as close together as possible. This process is essential to accelerate the chemical reaction that is generated subsequently. This process gives the slabs sufficient mechanical resistance to transport them to the next section which is the final thermal process.

THERMAL PROCESS
During this process, the final slab is generated with its physical, chemical and aesthetic properties. This process involves the application of a high temperature so that the different coloured granules react following a specific reaction route.

During this process, the transformation of the initial raw materials and pigments in various intermediates are produced. By using heat, they are controlled to react and so that they can follow the correct synthesis path.

SORTING AND STORAGE
The last step of the manufacturing process is the sorting and storage of slabs. These are sorted in a horizontally in an automated warehouse.
THE CONTINUOUS EFFORTS WE MAKE IN R&D ARE ONE OF THE BASIC PILLARS OF OUR BUSINESS.

DEKTON’s superior technical characteristics offer unique resistance to UV rays to maintain a stable colour in outdoor spaces, resistance and exceptional performance.

The product has excellent resistance to impacts, scratches and abrasion and therefore can be used in high traffic areas.

It also offers thermal shock resistance to heat, frost and thaw, so the product can be used outdoors in all weather conditions.

This powerful combination allows the use of DEKTON in many indoor and outdoor applications.

DEKTON is a sophisticated blend of raw materials, using a unique technological process (TSP), which is an accelerated version of the metamorphic changes that occur when natural stone is exposed to high pressure and temperature for thousands of years. The DEKTON press is 25,000 tonnes, the largest press in the world, which makes the stone into an ultra-compact surface of an unprecedented size and thickness, and ensuring extreme performance. This level of compaction contributes significantly to the low porosity of the material, making it a product that requires minimal maintenance and which is long-lasting.
DEKTON is presented in large format slabs with minimum thickness, expanding the design possibilities to previously unknown possibilities.

DEKTON slabs measures 3200 mm x 1440 mm and thicknesses from 8 mm to 20 mm, depending on the applications, design or desired effect.

Asides from the huge advantage of its size, the 3D design completes its extraordinary ability to be produced in a much more clean, complete and bright way, as well as designing seamless, uninterrupted and unlimited surfaces and spaces, where colour and texture flow freely in all directions and senses, expressing itself in all its fullness, with total freedom.
APPLICATIONS: VERSATILITY
DEKTON is a new product-leader that is demonstrated in all fields, in all spaces, indoors and outdoors, and in all scales. Endless applications so that the design flows.

In the DEKTON manufacturing process, up to 16 different decoration techniques are used, which enable a three-dimensional design and countless aesthetic possibilities.

With the design potential and features of DEKTON, it exponentially increases the possibility of imagining multiple ambitious, complex and free applications, connecting indoor and outdoor spaces by using a single product, for full consistency.

The DEKTON properties allows us to produce customised products, a free choice of formats and a wide range of thicknesses for each application.
The ventilated façade is a high performance constructive solution for building enclosures that take advantage of mechanical anchoring elements, a metal structure is used to attach the cladding material to the wall of the building.

Between the inner and outer cladding layer, an air chamber is created which generates a micro-ventilation effect by convection. The mechanical and aesthetic properties of DEKTON, make it an ideal material for this application, and also for other types of façades, such as attached façades, curtain walls, etc.

ADVANTAGES

ENERGY SAVINGS

ACOUSTIC INSULATION

HEALTH AND SAFETY: PREVENTS THERMAL BRIDGES AND CONDENSATION

PROTECTION AGAINST WATER FILTRATIONS

SUPPORT WALL PROTECTION

THERMAL INSULATION

PROPERTIES

WHAT MAKES DEKTON IDEAL FOR FACADES

3200 mm. x 1440 mm. Format
12 mm. and 20 mm. thickness
Flexural strength
Excellent dimensional stability
Resistance to freezing and thawing
Colour stability
Possibility of unlimited design: format, details, joints, colours etc.
The structure consists of profiles and clamps. These clamps are attached to the existing support, through appropriate sized plugs for this support. The horizontal profiles will be subsequently attached to the mullion profiles. The DEKTON pieces will be hung on these horizontal profiles.

The design of the structure must provide for the absorption of thermal expansion and contraction, as well as possible movements of the support, without the cladding being affected by the tension.

**CONCEALED FASTENING THROUGH REAR UNDERCUT ANCHORS**

Recommended thicknesses:
12 mm. and 20 mm.

Formats: Free choice of format, prior verification of calculation, up to a maximum of 3200 mm x 1440 mm.

The structure consists of profiles and corbels. The vertical profiles are anchored directly to the existing support through corbels and horizontal profiles that are embedded into the grooves in the DEKTON pieces. An adhesive fastening system is not necessary. The adoption of this system is directly related to the format of the piece, because the fixings are only on the edges.

The design of the structure must provide for the absorption of thermal expansion and contraction, as well as possible movements of the support, without the cladding being affected by the tension.

**CONCEALED FASTENINGS THROUGH HORIZONTAL PROFILES EMBEDDED IN THE GROOVES OF THE EDGES**

Recommended thicknesses:
12 mm. and 20 mm.

Depending on the necessary system and groove.

Format:
Free selection of format, up to a maximum piece height of 1440 mm (check system calculations).

*NB: For both fixing systems, the definition of type, position and number of anchors should be reflected in the technical design of the ventilated façade. These will be provided by those responsible for the system depending on the manufacturer’s recommendations. During the use of Dekton for ventilated facades, Cosentino S.A advises that it is necessary to use a rear mesh in order to guarantee the security with this kind of application.*
CONCEALED FASTENING THROUGH REAR UNDERCUT ANCHORS

1. Support wall
2. Corbels
3. Anchoring ring
4. Vertical profile
5. Screw
6. Insulation
7. Insulation fixing
8. Air chamber
9. Dekton
10. Cladding fixing
11. Horizontal hanging guide
12. Levelling nail
13. Hanging nail
14. Regulating screw
CONCEALED FASTENING THROUGH CONTINUOUS GROOVES WITH STAPLES

1. Anchoring ring
2. Corbels
3. Vertical profile
4. Screw
5. Stainless steel pressure spring
6. Clamp
7. EPDM clamp cover
8. Dekton
9. Insulation
VENTILATED FACADES: DETAILS

CONCEALED FASTENING: GROOVE WITH CONTINUOUS PROFILE

1. Closing crossbar
2. Closing clip
3. Support wall
4. Anchoring pieces for the brackets to studs
5. Intermediate crossbar
6. Intermediate clip
7. Corbels
8. Vertical profile
9. Start crossbar
10. Dekton
CONCEALED FASTENING THROUGH HORIZONTAL PROFILES EMBEDDED IN THE GROOVES AT THE REAR OF THE PIECE

1 Dekton
2 Screw
3 Insulation
4 Support wall
5 Support corbel
6 Vertical profile
7 Screw
8 Staple
9 Horizontal profile
10 Anchoring profile
DEKTON is an ideal solution for covering interior and exterior walls, as due to the ultra-compaction of each slab in the manufacturing process under a pressure of 25,000 tons, its high resistance, easy to clean and versatile formats and textures, provide the freedom to unify both indoor and outdoor spaces, enjoying exclusive aesthetic values without sacrificing comfort, maximum performance, durability and safety.

APPLICATIONS: CLADDING

<table>
<thead>
<tr>
<th>PROPERTIES</th>
<th>THAT MAKE DEKTON IDEAL FOR INDOOR AND OUTDOOR COVERINGS.</th>
</tr>
</thead>
<tbody>
<tr>
<td>3200 mm. x 1440 mm. large format</td>
<td>Colour stability</td>
</tr>
<tr>
<td>Versatility of formats</td>
<td>Possibility of endless design: format, details, joints, colours...</td>
</tr>
<tr>
<td>Thickness of 8 mm., 12 mm., and 20 mm. (depending on the requirements of the project)</td>
<td>Resistance to freezing and thawing</td>
</tr>
<tr>
<td>High flexural strength</td>
<td>Reduced porosity and good maintenance and cleaning</td>
</tr>
<tr>
<td>Excellent dimensional stability, reduced joints</td>
<td></td>
</tr>
</tbody>
</table>
The use of either system will depend on the size of the DEKTON piece, the building height to be coated, and weather conditions of the area where the building is located. The project management shall demonstrate compliance with the regulation in each case. For the installation, follow the manufacturer’s recommendations.
Imagine Dekton

Personalise texture. Adapt to the design characteristics of each project. Make it unique.
DEKTON floor coverings are a good alternative for areas with high requirements as far as performance and design are concerned, both indoors and outdoors.

The revolutionary DEKTON properties allow the designer total freedom to design the format to work, forgetting the limitations in place to now.

The solution is suitable for installation in office buildings, apartments, and high traffic areas where durability and abrasion resistance are two important factors.

The placement is similar to the placement of pieces in traditional formats but with the advantages of a large format.

PROPERTIES THAT MAKE DEKTON IDEAL FOR FLOOR COVERINGS.

- 3200 mm. x 1440 mm. Format
- Thicknesses of 8 mm., 12 mm. and 20 mm. (depending on the requirements of the project)
- Versatility of formats
- High resistance to abrasion.
- High flexural strength.
- Excellent dimensional stability.
- Reduced joints.
- Resistance to freezing and thawing.
- Reduced porosity and good maintenance and cleaning.
**DEKTON** provides continuity to floors between spaces at different heights.

3D volume decoration, coupled with excellent mechanical properties and large format, means the ability to design unlimited, uninterrupted steps, achieving uniform stairs and totally seamless spaces, both indoors and outdoors.

### PROPERTIES

**THAT MAKE DEKTON IDEAL FOR STAIRS.**

- **3200 mm. x 1440 mm. Format.**
- **Thicknesses of 8 mm., 12 mm. and 20 mm.** (depending on the requirements of the project)
- **High flexural strength.**
- **It allows exposed edges as the volume is coloured.**
- **Reduced porosity and good maintenance and cleaning.**
- **High resistance to abrasion.**
DETAILS: FLOOR COVERINGS AND STAIRS

INSTALLATION RECOMMENDATIONS

- Large format design possibilities.
- Choosing a thickness depending on project.
- Check the flatness of the support.
- Reduced 2 mm joints between pieces.
- Respect the building’s expansion joints.
- The use of C2 class adhesives according to Standard EN 12004 is recommended.
- For the installation, follow the manufacturer’s recommendations.
Low traffic areas
Tread: 210 mm
Riser: 210 mm

Maximum comfort
Tread: 290 mm
Riser: 170 mm

Outdoor stairs
Tread: 390 mm
Riser: 120 mm

Format type: 2 risers + treads = 630 mm

Average horizontal length of a step

1 Contour male footwear 95th percentile (normal footwear)
2 Foot contour
3 95th percentile male footwear profile (winter boots)
4 95th percentile female footwear profile (normal heeled footwear)
5 Heel
6 Expanse
7 Large foot expanse
8 Riser
9 Tread
10 Tread depth
11 Effective tread depth
If anything defines Japanese architecture it is the careful use of building materials, allowing optimisation for the sake of excellent spatial skills. Different constructive solutions have been proposed using the same material depending on the function.

The choice of DEKTON has enabled me to unify several features that were required for this project using one material.

Its natural appearance, hardness, durability and especially the availability of large formats that suit the needs of the project idea and not the other way about as happens a lot of the time were evaluated.”
“What I like most about DEKTON is that it does not make me give up my appreciation for natural materials, those which we mistakenly call “traditional”, as being so, they continue to demonstrate their contemporaneity more than ever.

DEKTON is the result of speeding up the processes that nature sequences over hundreds, thousands or millions of years, producing them in hours, as a result of technical and applied research. But to do so, a great deal of time and intensity has been necessary. Time in the effort to achieve the product, and intensity applied to the development of better construction and architectural research.

I like to think of this material as a synthesis that is at the centre of a geological triangle formed by stone, steel and glass. Just like stone, in DEKTON we can see the honesty and beauty of the material that sculpts and works the surface, offering the rich possibility of three-dimensionality.

DEKTON is the practical result of the best technique applied to this goal of condensing natural time.”
“When you look at a material, you don’t only pay attention to the colour or its production process or its chemical and physical properties, you sense the feelings it conveys.”

Daniel Libeskind

BEYOND THE WALL
"I became interested in DEKTON and Cosentino’s production because it is a company that is not only creating a new material, but for them the word sustainability - which, incidentally, was used in the inaugural speech of President Obama over twenty times - means something. It is not just an empty word to be able to call a building ‘green’. It means creating a sustainable environment; it means not wasting our resources, it means creating something that is efficient, that behaves appropriately in our cities with all the problems that reside in them, and it means that you can maintain over time and contribute positively to the environment. This was my first thought about DEKTON. And then, I discovered even more: the material has a lot of character, an intrinsic character that is as deep as a natural stone, but in a completely innovative way and with improved compaction resistance, properties etc.

How many wonderful buildings that we admire are beautiful in an image, a snapshot for five minutes, but when you come back a year later to the famous work of architecture, it can be found dilapidated because the materials are in poor condition ... For this reason, I admire Cosentino’s material, because it is a durable material, and for a building to be sustainable, it must be a building that not only has a new façade that lasts five years, but that resists pollution and all the problems we have in our cities ... so this is my connection to DEKTON.

I learned a lot about DEKTON, and I’m still learning, because it really is still a new item on the market. It is something new and I see great potential: its ability to create angles and how it embraces corners and how it creates continuity between the indoors and outdoors, something that rarely happens. And it is not only its natural origin that interests us, but its ability to develop the future is also part of it. I love the fact that it is a 21st century material that transmits innovative feelings. It is traditional, but it is also innovative. I really believe what I am saying. It is something of a special interest. Working with DEKTON in ‘Beyond the Wall’ I have been shown the complexity, versatility, possibilities and even the challenges of designing with a material such as DEKTON.

I am currently working on several projects, some very complex and others that we must restore large-scale buildings that were built many years ago. So what do I do? Well, I think about this material and its great potential, with dimensions ranging from a minimum thickness of 0.8 cm, large thickness slabs, and which are also available in large format ... You couldn’t imagine how difficult it is to get materials with these features ... Also, I think it’s a very competitive product, it is not expensive when compared to many others on the market. I am sure that this is the ideal material.

As I walked around the DEKTON factory and thought about how the world is changing - especially in Europe - in a society such as the service industry, I was stunned by the beauty of the factory and I thought this is what really creates culture.

Not only talking about it, but action. This is poetic and I was impressed with the ability of this entrepreneurial family organisation that really moves into other aspects of materiality.
# Technical Characteristics

**Datasheet According to STANDARD EN-14.411**

<table>
<thead>
<tr>
<th>Test</th>
<th>Standard</th>
<th>Determination</th>
<th>UD</th>
<th>Family I*</th>
<th>Family II*</th>
<th>Family III*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flexural and bending strength</td>
<td>UNE EN ISO 10.545-4</td>
<td>Average flexion resistance N/mm²</td>
<td>60</td>
<td>67</td>
<td>59</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Average bending load N</td>
<td>2.548</td>
<td>2.313</td>
<td>2.356</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Average bending strength N</td>
<td>14.966</td>
<td>13.559</td>
<td>13.818</td>
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<tr>
<td>Water absorption, open porosity and densities</td>
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<td>Boiled water absorption %</td>
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<td>0,1</td>
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<tr>
<td></td>
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<td>Vacuum water absorption %</td>
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<td>0,1</td>
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<td>Open porosity %</td>
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<td>0,2</td>
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<tr>
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<td>Apparent relative density ρ/cm³</td>
<td>2,51</td>
<td>2,61</td>
<td>2,53</td>
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<tr>
<td></td>
<td></td>
<td>Apparent density ρ/cm³</td>
<td>2,50</td>
<td>2,61</td>
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<tr>
<td>Resistance to deep abrasion</td>
<td>UNE EN ISO 10.545-6</td>
<td>Abrasive volume mm³</td>
<td>125</td>
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<td>115</td>
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<tr>
<td>Determination of dimensions and surface aspect</td>
<td>UNE EN ISO 10.545-2</td>
<td>Length and width %</td>
<td>±0,6% (+0,5 mm)</td>
<td>±0,6% (+0,5 mm)</td>
<td>±0,6% (+0,5 mm)</td>
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<tr>
<td></td>
<td></td>
<td>Thickness %</td>
<td>±0,5% (+0,5 mm)</td>
<td>±0,5% (+0,5 mm)</td>
<td>±0,5% (+0,5 mm)</td>
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<tr>
<td></td>
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<td>Straightness of sides %</td>
<td>±0,5% (+0,5 mm)</td>
<td>±0,5% (+0,5 mm)</td>
<td>±0,5% (+0,5 mm)</td>
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<tr>
<td></td>
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<td>Rectangularity %</td>
<td>±0,5% (+0,5 mm)</td>
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<tr>
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<td>Central curvature %</td>
<td>±0,5% (+0,5 mm)</td>
<td>±0,5% (+0,5 mm)</td>
<td>±0,5% (+0,5 mm)</td>
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<tr>
<td></td>
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<td>Lateral curvature %</td>
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<td>±0,5% (+0,5 mm)</td>
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<tr>
<td></td>
<td></td>
<td>Warping %</td>
<td>±0,5% (+0,5 mm)</td>
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<td></td>
<td></td>
<td>Surface appearance (Undamaged tiles) %</td>
<td>100</td>
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<td>100</td>
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<tr>
<td>Determination of impact resistance</td>
<td>UNE EN ISO 10.545-5</td>
<td>Coefficient of average restitution</td>
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<td>0,85</td>
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<td>Determination of thermal linear dilation</td>
<td>UNE EN ISO 10.545-8</td>
<td>Dilatation between 30-100°C °C</td>
<td>6,5 x 10⁻⁶</td>
<td>5,1 x 10⁻⁶</td>
<td>0,3 x 10⁻⁶</td>
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<tr>
<td>Determination of thermal shock resistance</td>
<td>UNE EN ISO 10.545-9</td>
<td>Damage</td>
<td>Approved / undamaged</td>
<td>Approved / undamaged</td>
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<td>Determination of humidity dilation</td>
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<td>Maximum expansion mm/m</td>
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<td>0,1</td>
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<td></td>
<td>Average expansion mm/m</td>
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<td>0,0</td>
<td>0,0</td>
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<tr>
<td>Determination of freeze resistance</td>
<td>UNE EN ISO 10.545-12</td>
<td>Damage</td>
<td>-</td>
<td>Approved / undamaged</td>
<td>Approved / undamaged</td>
<td>Approved / undamaged</td>
</tr>
<tr>
<td>Determination of chemical resistance</td>
<td>UNE EN ISO 10.545-13</td>
<td>CINH₄ / Cleaning products Class</td>
<td>UA (undamaged)</td>
<td>UA (undamaged)</td>
<td>UA (undamaged)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Bleach / Salts for pools Class</td>
<td>UA (undamaged)</td>
<td>UA (undamaged)</td>
<td>UA (undamaged)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>HCl (3% v/v) Class</td>
<td>ULA (undamaged)</td>
<td>ULA (undamaged)</td>
<td>ULA (undamaged)</td>
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<tr>
<td></td>
<td></td>
<td>Citric Acid (100g/l) Class</td>
<td>ULA (undamaged)</td>
<td>ULA (undamaged)</td>
<td>ULA (undamaged)</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>KOH (30 g/l) Class</td>
<td>ULA (undamaged)</td>
<td>ULA (undamaged)</td>
<td>ULA (undamaged)</td>
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<tr>
<td></td>
<td></td>
<td>HCl (18%) Class</td>
<td>UHA (undamaged)</td>
<td>UHA (undamaged)</td>
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<tr>
<td></td>
<td></td>
<td>Lactic Acid (5%) Class</td>
<td>UHA (undamaged)</td>
<td>UHA (undamaged)</td>
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<td></td>
<td></td>
<td>KOH (100 g/l) Class</td>
<td>UHA (undamaged)</td>
<td>UHA (undamaged)</td>
<td>UHA (undamaged)</td>
<td></td>
</tr>
<tr>
<td>Determination of stain resistance</td>
<td>UNE EN ISO 10.545-14</td>
<td>Green agent Class</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Red agent Class</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mud (solution) Class</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Olive oil Class</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

* Check references for families.
### DATASHEET
According to **STANDARD ASTM** (American Society for Testing Materials)

<table>
<thead>
<tr>
<th>Test</th>
<th>Standard</th>
<th>Determination</th>
<th>UD</th>
<th>Family I *</th>
<th>Family II *</th>
<th>Family III *</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moisture expansion</td>
<td>ASTM C370</td>
<td>Average moisture expansion</td>
<td>%</td>
<td>0.02</td>
<td>0.005</td>
<td>0.004</td>
</tr>
<tr>
<td>Breaking strength</td>
<td>ASTM C648</td>
<td>Average breaking strength</td>
<td>lb</td>
<td>3.963</td>
<td>4.896</td>
<td>3.932</td>
</tr>
<tr>
<td>Flexural properties</td>
<td>ASTM C674</td>
<td>Average modulus of rupture</td>
<td>psi</td>
<td>10.828</td>
<td>13.997</td>
<td>9.005</td>
</tr>
<tr>
<td>Water absorption, bulk density, apparent porosity and apparent specific gravity</td>
<td>ASTM C373</td>
<td>Average water absorption</td>
<td>%</td>
<td>0.03 (Impervious)</td>
<td>0.05 (Impervious)</td>
<td>0.01 (Impervious)</td>
</tr>
<tr>
<td>Static coefficient of friction (skid resistance)</td>
<td>ASTM C1028</td>
<td>Static coeff. Friction dry</td>
<td>-</td>
<td>0.80</td>
<td>0.77</td>
<td>0.77</td>
</tr>
<tr>
<td>Static coefficient of friction (DCOF)</td>
<td>ANSI A137.1 section 9.6.1</td>
<td>Average DCOF</td>
<td>-</td>
<td>0.66</td>
<td>0.56</td>
<td>0.69</td>
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<tr>
<td>Relative resistance to wear (Taber abrasion)</td>
<td>ASTM C501</td>
<td>Average Abrasive Wear Index</td>
<td></td>
<td>182.2</td>
<td>337</td>
<td>240</td>
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<tr>
<td>Bond strength</td>
<td>ASTM C482</td>
<td>Average bond strength</td>
<td>psi</td>
<td>423</td>
<td>437</td>
<td>357</td>
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</table>

### Resistance to chemical substances
According to **ASTM C650**

<table>
<thead>
<tr>
<th>Test</th>
<th>Standard</th>
<th>Common Household and cleaning chemicals</th>
<th></th>
<th>Not affected</th>
<th>Not affected</th>
<th>Not affected</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water absorption, bulk density, apparent porosity and apparent specific gravity</td>
<td>ASTM C373</td>
<td>Average water absorption</td>
<td>%</td>
<td>0.02</td>
<td>0.04</td>
<td>0.02</td>
</tr>
<tr>
<td>Static coefficient of friction (skid resistance)</td>
<td>ASTM C1028</td>
<td>Static coeff. Friction dry</td>
<td>-</td>
<td>Not affected</td>
<td>Not affected</td>
<td>Not affected</td>
</tr>
<tr>
<td>Relative resistance to wear (Taber abrasion)</td>
<td>ASTM C501</td>
<td>Average Abrasive Wear Index</td>
<td></td>
<td>Not affected</td>
<td>Not affected</td>
<td>Not affected</td>
</tr>
<tr>
<td>Thermal shock resistance</td>
<td>ASTM C484</td>
<td>Defects</td>
<td>-</td>
<td>No defects</td>
<td>No defects</td>
<td>No defects</td>
</tr>
<tr>
<td>Bond strength</td>
<td>ASTM C482</td>
<td>Average bond strength</td>
<td>psi</td>
<td>423</td>
<td>437</td>
<td>357</td>
</tr>
</tbody>
</table>

### Absorption and bulk gravity
According to **ASTM C97**

<table>
<thead>
<tr>
<th>Test</th>
<th>Standard</th>
<th>Average weight percent absorption</th>
<th>%</th>
<th>0.02</th>
<th>0.04</th>
<th>0.02</th>
</tr>
</thead>
<tbody>
<tr>
<td>Absorption and bulk gravity</td>
<td>ASTM C97</td>
<td>Average density</td>
<td>lb/ft³</td>
<td>156</td>
<td>160,63</td>
<td>157,6</td>
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<tr>
<td>Modulus of rupture</td>
<td>ASTM C99</td>
<td>Average modulus of rupture dry conditions</td>
<td>psi</td>
<td>8.128</td>
<td>9.042</td>
<td>7.369</td>
</tr>
<tr>
<td>Flexural strength</td>
<td>ASTM C880</td>
<td>Average flexural strength dry conditions</td>
<td>psi</td>
<td>7.490</td>
<td>8.446</td>
<td>7.480</td>
</tr>
<tr>
<td>Compressive strength</td>
<td>ASTM C170</td>
<td>Average compressive strength dry conditions</td>
<td>psi</td>
<td>34.409</td>
<td>&gt;55.000</td>
<td>44.882</td>
</tr>
<tr>
<td>Abrasion resistance</td>
<td>ASTM C1353</td>
<td>Average index of abrasion</td>
<td>-</td>
<td>349</td>
<td>349.48</td>
<td>265.8</td>
</tr>
</tbody>
</table>

* Check references for families

### SLIPPERINESS REPORT
According to **STANDARD EN-14231**

<table>
<thead>
<tr>
<th>Natural Finish</th>
<th>Value</th>
<th>Determination</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>48</td>
<td>USRV dry</td>
</tr>
<tr>
<td></td>
<td>23</td>
<td>USRV web</td>
</tr>
</tbody>
</table>

According to **STANDARD DIN 51130**

<table>
<thead>
<tr>
<th>Natural Finish</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>7.2</td>
</tr>
</tbody>
</table>
Cosentino SA, in its policy of continuous improvement in line with sustainable development, has developed in recent years a number of investments in environmental improvement of the production process.

These actions are aimed at:

- Eliminating or reducing atmospheric emissions from industrial facilities.
- Improving waste management and minimising the generation thereof.
- Implementing water treatment systems in order to optimise their use and minimise their discharge.
- Improving sustainable mobility.
- Creating green spaces.
- Energy efficiency.

SUSTAINABLE DEVELOPMENT

ATMOSPHERE

Air protection is essential not only in environmental terms but also for the health of people. Among the measures that have been taken in manufacturing DEKTON, we can highlight:

- Enclosed conveying systems for micronised raw materials from the truck to the mill.
- Integrated transport systems to minimise the potential emissions from the point of generation of coloured raw material (spray) to the point of storage (24 hermetic silos).
- Centralised dust collection and purification systems through 7 hose filters, which are located in different sections of the factory.
- Installation for extraction, processing, and recovery of the fumes from the furnace.
- MRD and SPR systems to recover heat from the furnaces.

GREEN SPACES

More than 25,000 m² of green spaces have been created in the new industrial park Local species and more than 200 trees have been uses, adapted to the arid conditions of the area.

ENERGY EFFICIENCY

Besides already mentioned saving measures (such as reusing heat from the fumes of the furnace) other efficiency measures have been programmed.

For outdoor street lighting, LED lighting has been used with timers depending on traffic. Maximum use of natural light has been made by installing skylights.

EVALUATION OF WASTE

The following systems for the recovery of waste generated in the production process have been installed:

- Set of installations aimed at reuse of raw waste prior to the cooking process.
- Dust Recovery System from the various emission catchment areas.
- Sweeper-scrubber cleaning machines with water recycling system.

WATER USE AND MANAGEMENT

Water is a limited resource. This has been taken into account in the manufacturing of DEKTON, adopting the following measures:

- Fours deposits located throughout the factory, allowing the collection of water for cleaning and reuse in the process.
- System for obtaining water by reverse osmosis technology.
- Decantation and clarification process that allows the treatment and recovery of process waters.

SUSTAINABLE MOBILITY

Within the Cosentino sustainability policy, sustainable mobility plays a prominent role. In this line, and with regard to the new industrial park where DEKTON is made, over 2 miles of bike lanes have been designed and bikes were bought for workers to move about.

Additionally, sustainable movement is promoted in the industrial park, with the use of electric vehicles, for both workers and suppliers.
SUSTAINABLE AND ENERGY SAVING PROCESSES ARE AN IMPORTANT PART OF COSENTINO MANAGEMENT.

ISO 14001

This recognition certifies and consolidates the Cosentino the quality of the Cosentino environmental management system.

This certificate covers the entire process in which the company is involved in from the design, manufacture and processing of DEKTON, to their distribution and marketing.

It certifies among other things, the control of emissions into the atmosphere, waste management programmes, treatment systems and re-use of industrial water, disposal of chemical substances, and control of environmental hazards.

NSF

DEKTON® by Cosentino is being tested and evaluated under NSF International Standard 51 for the various products.

Achieving the NSF certificate and therefore the right to use the logo for certified products, is a toxicological evaluation of all the ingredients of the various products, conducting proficiency testing and successfully passing unannounced annual audits at all manufacturing sites.

To see the list of products that are in force under this certification, visit the NSF website.

www.nsf.org

GREENGUARD

The Greenguard Certified programme identifies those products that have been tested to ensure that their chemical and particle emissions are in line with strict guidelines for indoor air pollutants. Similarly Greenguard has another certificate “Greenguard for Children & Schools” which assesses the sensitive nature of school communities along with the specific characteristics of this type of building. This type of certificate includes the maximum control of requirements with regard to chemical product emissions.

DEKTON® by Cosentino has been analysed by Greenguard, proving that it does not emit any VOCs and thus has achieved certifications for both Greenguard Certified (Certificate No. 41572-410) and Greenguard Gold (Certificate No. 41572-420).

The different certificates for Cosentino products can be downloaded from the Greenguard website.

www.greenguard.org

ETA

European Technical Assessment (ETA)

DEKTON® by Cosentino is being evaluated by the ITEC (Institute of Construction Technology of Catalonia) as a product for ventilated façades. After achieving the European Technical Assessment, a CE mark will be directly applied to the product for this type of applications.

For information about a specific certificate for projects consult Cosentino Research and Development, SL:
infoCRD@cosentinogroup.net
Cosentino Group is a global family-owned company that produces and distributes high value innovative surfaces for the world of design and architecture. It has its own culture based on innovation, which has led it to develop pioneering products that have become major figures in the market.

Cosentino currently operates the largest quartz production plant in Spain and the largest natural granite production plant in Brazil. Also, it distributes its products to more than 80 countries around the world and it has more than 2,400 employees. More than 85% of Cosentino Group’s turnover is derived from international markets.
Cosentino’s headquarters are located in the Industrial Park in Macael in the province of Almería (Spain), with a total area of about one million square meters. This is the productive, administrative and logistic hub from which the group controls and monitors its international distribution system.

This park contains the most important production facilities including: three Silestone and Eco by Cosentino plants, a marble plant and the new DEKTON plant.

The latter is an innovative production installation that covers more than 170,000 metres squared, equipped with the most cutting-edge technology and a minimum daily production capacity of 1,500 slabs that are 2 cm thick. In the future, planned capacity will be a total of 6,000 slabs daily.

In addition to the new DEKTON plant, a new distribution center called Intelligent Logistics Platform has been created, ensuring the supply of DEKTON, Silestone and Eco by Cosentino, seven days a week, 365 days a year. This platform automatically loads and places all orders for slabs using advanced warehouse management software.

### COSENTINO INNOVATION TIMELINE

<table>
<thead>
<tr>
<th>Year</th>
<th>Product/Innovation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>Silestone</td>
</tr>
<tr>
<td>2000</td>
<td>Natural Granite</td>
</tr>
<tr>
<td>2004</td>
<td>Bacteriostatic Protection</td>
</tr>
<tr>
<td>2006</td>
<td>Sensa</td>
</tr>
<tr>
<td>2007</td>
<td>Prexury</td>
</tr>
<tr>
<td>2009</td>
<td>ECO by Cosentino</td>
</tr>
<tr>
<td>2010</td>
<td>Integrity</td>
</tr>
<tr>
<td>2012</td>
<td>Suede</td>
</tr>
<tr>
<td>2013</td>
<td>Dekton</td>
</tr>
</tbody>
</table>

**Silestone**
- Kitchen and bathroom worktops
- Natural quartz for the decoration of kitchens and bathrooms with a wide range of colours and the highest performance.

**Natural Granite**
- Produced in Brazil
- Committed to innovation with the commissioning of one of the most modern granite factories in the world.

**Bacteriostatic Protection**
- An exclusive bacteriostatic protection developed by Cosentino that stops the spread of bacteria on surfaces including in edges and gaps.

**Sensa**
- Natural granite with exclusive protection
- Unique granite with an exclusive anti-stain protection that repels liquids and with NSF certificate for the entire product life.

**Prexury**
- Semi-precious stones
- Surfaces made with semi-precious stones and other natural materials that allow you to create unique spaces.

**ECO by Cosentino**
- Recycled surfaces
- New material composed of 75% of recycled materials, which includes an ecological resin derived from corn.

**Integrity**
- Integrated sinks
- Worktop and sink fused in one pieces, without joints, crevices or limits: Perfect integration.

**Suede**
- New exclusive texture
- New extra matte Silestone finish with a unique never-seen-before texture and the same features as the polished finish.

**Dekton**
- Large format ultra-compact surface.
- A product with extraordinary features with zero porosity thanks to its exclusive Cosentino compaction process.
Thanks to its innovative activity both in production processes and business lines, Cosentino has retained its position as world leader in the field of stone materials.

Cosentino has its own cross-cutting R & D centre at its headquarters based in Spain, which includes six laboratories: ceramics and glass, pigments, polymers, natural stone, quartz, and general research.

Much of the success of Cosentino is down to many collaborations essential in generating significant progress. We do not explore alone, we do not research in solitude. Collaboration with universities, companies and technological institutes of worldwide reference and association with architects, designers and industry leading engineers, are essential areas for work, progress and innovation.
DEKTON uses unique Particle Sintering technology (TSP), a highly technological process that represents an accelerated version of metamorphic change than natural stone undergoes when subjected to high temperatures and pressures over thousands of years.

TSP is a process that sinters mineral particles to ensure that they join together, so that the internal structure is altered and compacted.

The DEKTON press is 25,000 tonnes, the largest press in the world, which makes the stone sheet into an ultra-compact surface, guaranteeing extreme performance.

This development represents a technological breakthrough capable of generating a new process, a revolutionary material and a leading product.
**COSENTINO CENTERS NETWORK**

**CANADA**
- Cosentino CALGARY*

**USA**
- Cosentino ANAHEIM
- Cosentino ATLANTA
- Cosentino AUSTIN
- Cosentino BOSTON
- Cosentino CHARLOTTE
- Cosentino CINCINNATI
- Cosentino DALLAS
- Cosentino DENVER*
- Cosentino DFW (DALLAS) *
- Cosentino HOUSTON
- Cosentino LENEXA
- Cosentino LONG ISLAND*
- Cosentino MIAMI
- Cosentino MINNEAPOLIS
- Cosentino ORLANDO
- Cosentino PITTSBURG*
- Cosentino PHILADELPHIA
- Cosentino PHOENIX
- Cosentino SACRAMENTO*
- Cosentino SAN DIEGO
- Cosentino SAN FRANCISCO
- Cosentino SEATTLE
- Cosentino SPOKANE
- Cosentino CENTRAL TEXAS*
- Cosentino WASHINGTON DC
- Cosentino WESTCHESTER

**MEXICO**
- Cosentino MEXICO-LATAM

**ESPÁÑA**
- Cosentino A CORUÑA
- Cosentino BILBAO
- Cosentino BARCELONA
- Cosentino CASTELLÓN
- Cosentino MÉRIDA
- Cosentino MADRID
- Cosentino MURCIA
- Cosentino SAN SEBASTIAN
- Cosentino SANTANDER
- Cosentino SEVILLA
- Cosentino TOLEDO
- Cosentino VALENCIA
- Cosentino VALLADOLID
- Cosentino ZARAGOZA
- Cosentino GIRONA
- Cosentino GRANADA
- Cosentino ALMERÍA
- Cosentino VIGO

**IRELAND**
- Cosentino DUBLIN CENTRE

**PORTUGAL**
- Cosentino LISBOA
- Cosentino PORTO

**UK**
- Cosentino DARLINGTON
- Cosentino EAST LONDON
- Cosentino GLOUCESTER
- Cosentino HODK
- Cosentino MANCHESTER

**BRASIL**
- Cosentino BELO HORIZONTE
- Cosentino FORTALEZA
- Cosentino GOIÂNIA
- Cosentino LATINA VITORIA
- Cosentino RECIFE
- Cosentino SAO PAULO
- Cosentino SANTA CATARINA

* Opening soon