Arquitectura
Innovación
Responsabilidad
y respeto al Medio Ambiente de
Eco by Cosentino

JoseCarlos Aranaz
architect. knowledge management manager
Cosentino Group

Soller (Mallorca)
13 marzo 2015

MEDIO AMBIENTE | La pancarta tiene más de 400 metros cuadrados

Greenpeace despliega una señal de peligro gigante en el vertedero de Nerva

Vista aérea de la pancarta desplegada por Greenpeace en el vertedero de Nerva. | E.M.

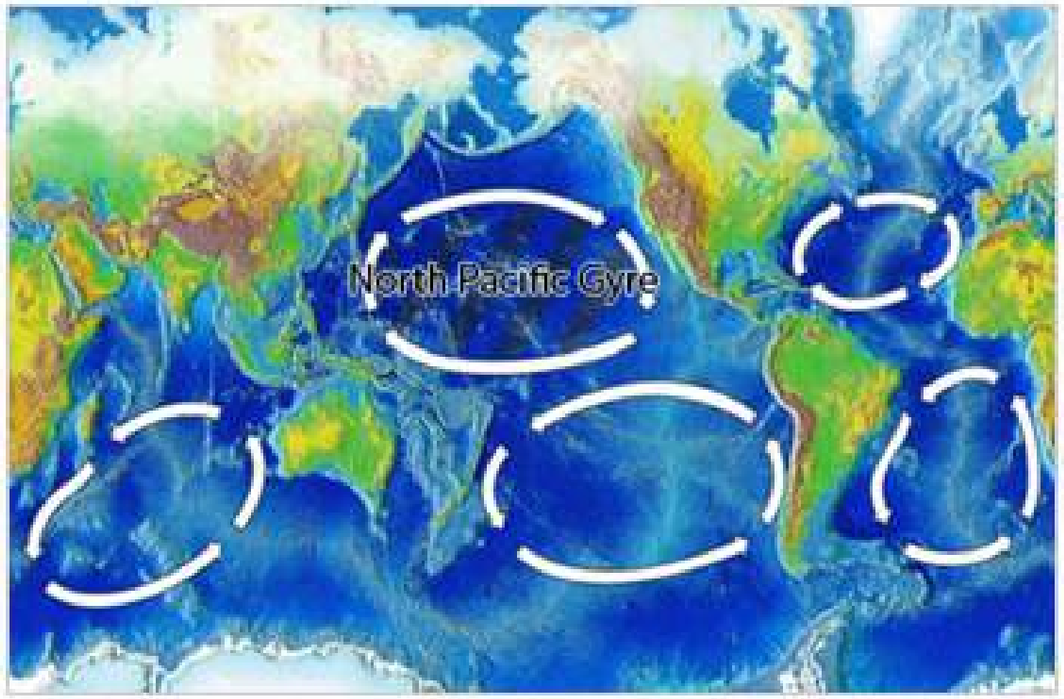
Great Pacific Garbage Patch

From Wikipedia, the free encyclopedia

Coordinates: 38°N 145°W

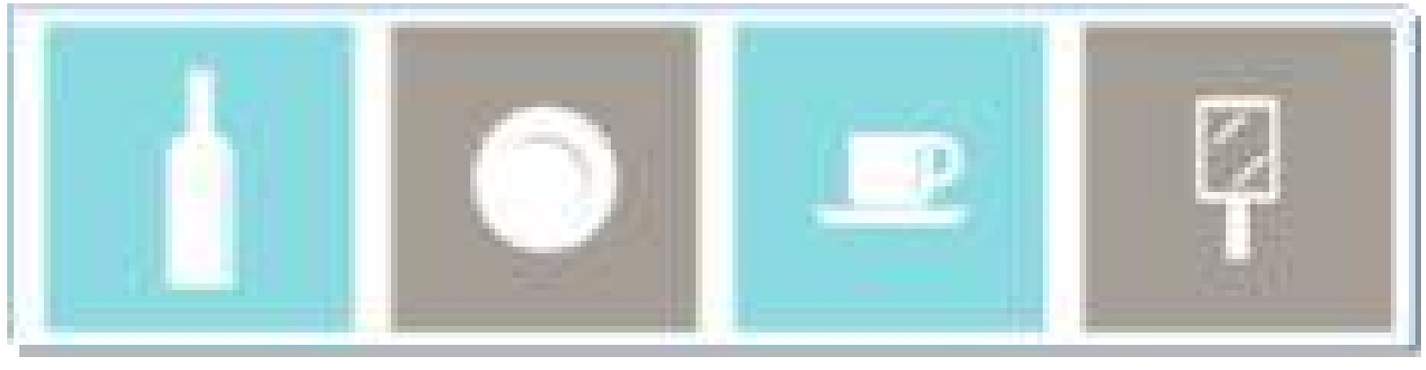
The **Great Pacific Garbage Patch**, also described as the **Pacific Trash Vortex**, is a gyre of marine litter in the central North Pacific Ocean located roughly between 135°W to 155°W and 35°N to 42°N.[1] The patch extends over an indeterminate area, with estimates ranging very widely depending on the degree of plastic concentration used to define the affected area.

The Patch is characterized by exceptionally high concentrations of pelagic plastics, chemical sludge, and other debris that have been trapped by the currents of the North Pacific Gyre.[2] Despite its size and density, the patch is not visible from satellite photography, since it consists primarily of suspended particulates in the upper water column. Since plastics break down to even smaller polymers, concentrations of submerged particles are not visible from space, nor do they appear as a continuous debris field. Instead, the patch is defined as an area in which the mass of plastic debris in the upper water column is significantly higher



The Garbage Patch is located within the North Pacific Gyre, one of

Discovered in 1997 by Captain Charles Moore [Observer 8 Aug 10]
2008: 45 kilos of trash per kilo of plankton [Observer 8 Aug 10]
The floating dump covers an area one and a half time the size of the USA [Observer 8 Aug 10]



¿Qué y cuanto reciclamos?

Premios

CONSTRUMAT 2009

a la innovación tecnológica

Productos para aislamientos y revestimientos e instalaciones

ECO by Cosentino

Cosentino SA

PRODUCTO SELECCIONADO

ECO by Cosentino - Producto Premiado
en la Categoría de Revestimientos, Aislamientos
e Instalaciones

Construmat 2009

(en 1991 fue premiado SILESTONE by Cosentino)

¿cuánto podemos cambiar...?

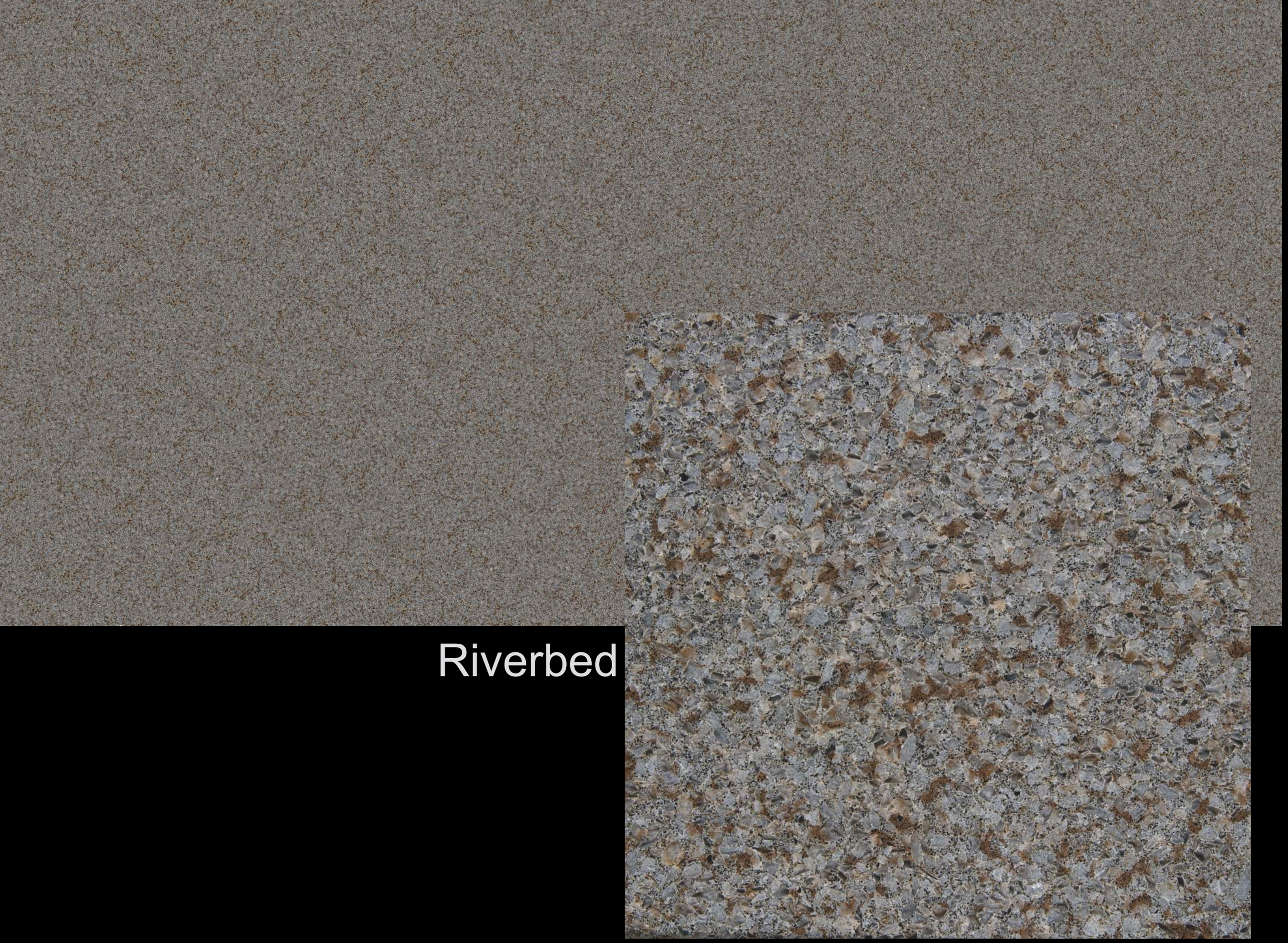
ECO en **NY:**

- **75% recycled**
- **new vision**

¿podemos cambiar...?

ECO en NY:

Arte y Poesía a partir del vidrio y la porcelana



Riverbed

Creamstone

CERTIFIED
cradle to cradle
SILVER

cradle to cradle℠
PRODUCT CERTIFICATION
SILVER

IS HEREBY GRANTED FROM APRIL 21, 2009 TO APRIL 20, 2010

Cosentino, S.A.
ECO by Cosentino®

William McDonough
PRINCIPAL AND CO-FOUNDER

Michael Braungart
PRINCIPAL AND CO-FOUNDER

Jay Bolus
VP. TECHNICAL OPERATIONS

MBDC

¿cómo aprender de la naturaleza?

- De la cuna a la cuna.
- El material es 100% reciclable
- Se inspecciona toda la cadena de proveedores
- Se incorpora una cantidad mínima de "nutrientes" a cada proceso de producción
- Confirma que el producto es sostenible en el uso de mínimos recursos naturales y de manera sostenible para la comunidad

Proceso industrial:

Usar MATERIALES INOCUOS Y SALUDABLES para el medio ambiente.

Diseñar teniendo en cuenta la REUTILIZACION DEL MATERIAL a través del RECICLAJE (capacidad de emplear todo el material para producir un nuevo producto).

Realizar un USO EFICIENTE DEL AGUA y promover una máxima calidad del agua asociada a la producción.

Instituir estrategias para RESPONSABILIDAD SOCIAL.

(filosofía C2C)

ECO® by Cosentino:

Make it Right Foundation uses ECO by Cosentino

Project:
Make it Right

Location:
New Orleans – Lower Ninth Ward

Founder:
Actor- Brad Pitt

Project:
150 green homes

Architectural Firms:
Constructs-Accra / Ghana, Africa
Concordia/ New Orleans, USA
Atelier Hitoshi Abe / Japan
Kieran Timberlake Associates / Philadelphia, USA

Materials used:
1. Riverbed- ECO by Cosentino - Constructs-Accra
2. Starlight- ECO by Cosentino - Concordia
3. Kona Beige- Silestone by Cosentino - Atelier Hitoshi Abe
4. Riverbed- ECO by Cosentino - Kieren Timberlake Associates

New Orleans – Lower Ninth Ward

More than 4,000 homes in New Orleans' Lower 9th Ward were destroyed by Hurricane Katrina. Two years later, when actor Brad Pitt toured the city, the neighborhood was still deserted and devastated. Pitt promised the families he met there, that he would help make it right. He founded Make It Right to build 150 affordable, green storm resistant homes for families living in the Lower 9th Ward when the storm hit.

In December 2007, when Brad Pitt conceived his plan to rebuild part of the flood-ruined Lower 9th Ward, he had the future in mind.

Cradle to Cradle Design

(sometimes abbreviated to C2C, or Cradle 2 Cradle, or in some circles referred to as regenerative) is a biomimetic approach to the design of systems. It models human industry on nature's processes in which materials are viewed as nutrients circulating in healthy, safe metabolisms. It suggests that industry must protect and enrich ecosystems and nature's biological metabolism while also maintaining safe, productive technical metabolism for the high-quality use and circulation of organic and synthetic materials. Put simply, it is a holistic economic, industrial and social framework that seeks to create systems that are not just efficient but essentially waste free. The model in its broadest sense is not limited to industrial

EDP – Environmental Product Declaration
DAP – Declaración Ambiental de Producto

Categoría de impacto
Acidificación
Eutrofización
Calentamiento global
Oxidación fotoquímica

Acidificación

Eutrofización

Calentamiento global (CO2)

Oxidación fotoquímica

EPD®

DECLARACIÓN AMBIENTAL DE PRODUCTO

ECO by COSENTINO

RECYCLED SURFACES

4 METODOLOGÍA DE ANÁLISIS DEL CICLO DE VIDA.

4.1 UNIDAD FUNCIONAL.

La unidad funcional es la referencia en la que se expresan todos los datos de este Análisis del Ciclo de Vida.

En este caso, Cosentino® ha seleccionado como unidad funcional la producción de una tabla de encimera reciclada que mide 3,04x1,38x0,02 m y pesa aproximadamente 209,8 kg. Esta unidad funcional es la recomendada por la PCR específica del producto (PCR 2008:08).

Comportamiento ambiental por unidad funcional (una tabla de 209,8 kg). Tabla 5.

Categoría de impacto	Unidad	Total	Aguas arriba	Producción	Aguas abajo
Acidificación	kg SO_2 eq.	0,92	0,46	0,185	0,28
Eutrofización	kg PO_4 eq.	0,16	0,124	0,010	0,029
Calentamiento global	kg CO_2 eq.	144,0	88,8	31,6	23,1
Oxidación fotoquímica	kg C_2H_4 eq.	0,055	0,037	0,007	0,010

DICHIARAZIONE AMBIENTALE DI PRODOTTO PER TONDO IN ACCIAIO IN BARRE PER CALCESTRUZZO ARMATO DI

INDUSTRIE RIUNITE ODOLESI I.R.O. S.p.A.

CPC 4124

CERTIFICAZIONE N. S-P 00257

REVISIONE 0 DEL 22-03-2011

VALIDA FINO AL 28-02-2011

METODOLOGIA

La quantificazione della prestazione ambientale è stata effettuata, in accordo con il PCR 2010:02 "Steel for the Reinforcement of Concrete - Weldable Reinforcing Steel –(EN 10080)" e secondo la metodologia di analisi del ciclo di vita (lca – life cycle assessment) regolata dagli standard internazionali iso serie 14040. la metodologia lca permette di determinare gli impatti ambientali di un prodotto o servizio in termini di consumo di risorse e di emissioni nell'ambiente, nonché di produzione di rifiuti, in un'ottica di ciclo di vita ("dalla culla alla tomba").

I dati raccolti presso il sito di IRO spa fanno riferimento alla produzione **dell'anno 2009** (268.808 t di barre). Lo studio ha inoltre utilizzato come supporto la banca dati del Sima Pro.

La **funzione** del sistema complessivo oggetto dello studio consiste nella produzione di manufatti in acciaio per calcestruzzo armato ad alta duttilità attraverso due processi principali: la fusione del rottame in forno elettrico ad arco e la laminazione a caldo del prodotto ottenuto.

A questo proposito, in conformità con i criteri identificati dai PCR di riferimento, il presente studio adotta una **unità funzionale** consistente **in una tonnellata di materiale laminato a caldo** pronto per la commercializzazione.

La partizione dei carichi ambientali è stata effettuata per mezzo del metodo dell'allocazione suddividendo i flussi in entrata e in uscita dal sistema sulla base della massa complessiva del prodotto e del co-prodotto.

Indicatore	Unità	UPSTREAM	CORE	DOWNSTREAM	*Totale*
Effetto serra	[kg CO_2 eq]	34	710	58	*802*
Distruzione della fascia di ozono	[gCFC11]	trascurabile	trascurabile	trascurabile	*trascurabile*
Formazione di ossidanti fotochimici	[g C_2H_4 eq]	34	364	41	*439*
Acidificazione	[g SO_2 eq]	198	2.961	334	*3.493*
Eutrofizzazione	[g PO_4^{3-} eq]	38	462	69	*569*

		DAP (declaración ambiental de producto) | EPD						
CATEGORIA DE IMPACTO	unidad	**ECO by Cosentino** | encimera reciclada (tabla 3,04 x 1,38 x 0,2 m; peso 209,8 kg)	**Green Box, SABOX** | caja cartón (1 ton. cartón ondulado)	**Ecozero, POLITEX** | panel poliéster reciclado (100 kg con densidad 30 kg/m3 y λ 0,0355 W/mK)	**IRO, Odolesi** | redondos hormigón armado (1 ton. material laminado en caliente)	**CARSLSBERG beer** | cerveza (100 litros embotellados y entregados en destino)	**NILEAS y 68+, Greece** | aceite oliva virgen extra (100 botellas de 0,75 litros)	**DANI, sustainable Leather** | cuero (1 m2 de piel bovina preparada)
Acidificación	kg SO_2	0,920	2,070	0,514	3,493	1,980	2,300	0,431
Eutrofización	kg PO_4	0,160	1,082	0,190	0,569	23,160	2,600	0,373
Calentamiento global	kg CO_2	144	993	168	802	165	251	55
Oxidación	kg C_2H_4	0,055	0,505	0,125	0,439	0,780	0,800	0,022

VIVIENDA EE+

La casa pasiva en el Mediterráneo

Proyecto con certificación energética A

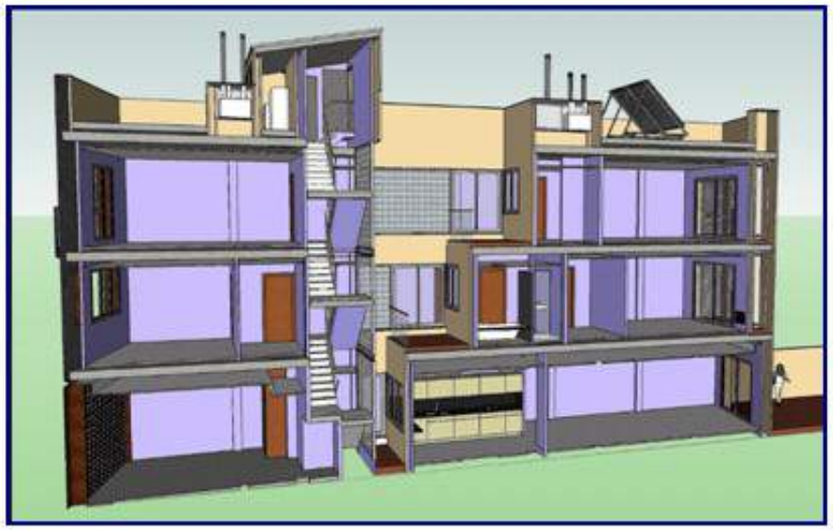
Sant Feliu de Llobregat (Barcelona)

VIVIENDA EE+

La casa pasiva en el Mediterráneo

Sant Feliu de Llobregat (Barcelona)

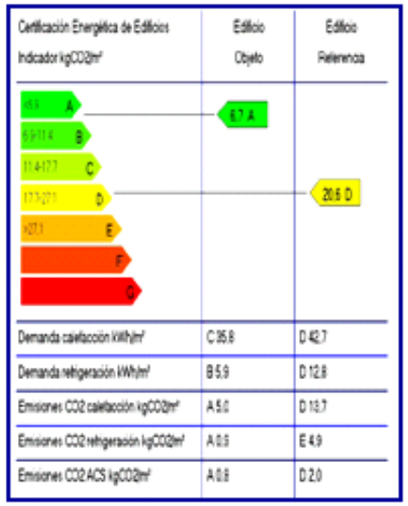
- Vivienda unifamiliar entre medianas
- Doble aislamiento térmico en todo el envolvente del edifico



AHORRO ENERGETICO DEL EDIFICIO (TOTAL)
> 85%

VIVIENDA EE+

Certificado Energético Clase A



AHORRO ENERGETICO DEL EDIFICIO (TOTAL)
> 85%

Certificado Energético Clase A
Institut Català de Energya (ICAEN)

Fecha: **Febrero 2.009**
Programa: **CALENER VIP**
Consumo de energía: **13.794,48 kWh/año**
Anual: **59,50 kWh/m²**
Emisiones CO_2: **1.576,51 kgCO_2/año**
Anual: **6,80 kgCO_2/m²**

Edificios comparados (ahorro energético)

Vivienda tradicional: Envolvente térmico exterior edificio según CTE; caldera convencional estanca (calefacción y ACS); radiadores; aire acondicionado; equipo solar térmico (ACS); regulación de temperatura por habitaciones.

Vivienda EE+: Envolvente térmico exterior edificio mejorado a CTE; bomba calor (suelo/agua); bomba de calor (aire/agua); equipo energía solar térmica (ACS); suelo radiante (calefacción y refrigeración); ventilación mecánica controlada con recuperador de calor; regulación de temperatura por habitaciones

revestimiento seco de paredes con fijación mecánica (3)

misma lógica de colocación en pequeño y gran formato

9–11 November 2012 PASSIVE HOUSE RESIDENTS OPEN THEIR HOMES:

International Passive House Days

Invitation

Jornadas Internacionales de puertas abiertas Casas Passivhaus 2012

Los días 10 y 11 de noviembre de 2012 se celebrarán en España los días de puertas abiertas Passivhaus, donde promotores, técnicos y usuarios abren las puertas de sus viviendas Passivhaus durante un fin de semana para que libremente puedan ser visitadas por cualquier interesado.

Casa EntreEncinas

ENTREENCINAS S.L.
Promociones Bioclimáticas

D7 DUQUEYZAMORA arquitectos

VISITAS:

Sábado 10.11.12: Entre las 10:00 y las 18:00
Domingo 11.11.12: Entre las 10:00 y las 18:00
Punto de encuentro: Casa EntreEncinas, Parcela n º 2, El Bosque, 33591 Villanueva de Pría
Visitas guiadas: José Manuel Zamora
¿Cómo llegar en coche?:
enlace a Google maps: **http://goo.gl/maps/L41tf**
(copiar y pegar enlace en tu navegador)
Contacto: 619082617
Email: jmzamor@telefonica.net

Se necesita confirmación, las visitas son restringidas en número

International PASSIVE HOUSE Association IPHA

PassREg

Supported by INTELLIGENT ENERGY EUROPE


AL ESTIL
TRADICIONA

ECO™ by Cosentino LEED Certification

By using ECO by Cosentino products, building teams will have a cost-effective and durable alternative to natural stones, laminates and other surfacing material and can contribute to an environmentally sensible project in keeping with today's "green conscious" building under LEED stewardship.

Eco by Cosentino products will contribute towards obtaining the following LEED points:

1) MR Credit 4.1: Recycled Content: 10% (post-consumer + 1/2 pre-consumer)
   1 Point
   In all ECO by Cosentino colors there is a minimum of either, 75% post-consumer recycled content, or 75% pre-consumer recycled content.

2) MR Credit 4.2: Recycled Content: 20% (post-consumer + 1/2 pre-consumer)
   1 Point
   In all ECO by Cosentino colors there is a minimum of either, 75% post-consumer recycled content, or 75% pre-consumer recycled content.

3) ID Credit 1-1.4: Innovation in Design (Exemplary performance 30% recycled content)
   1-4 Points
   In all ECO by Cosentino colors there is a minimum of either, 75% post-consumer recycled content, or 75% pre-consumer recycled content.

4) EQ Credit 4.1: Emitting Materials: Adhesive and Sealants
   1 Point
   A) The network of fabricators use DAP* caulk for countertop installations. To assure contribution, make certain to request the use of DAP* caulk. DAP's VOC content is less than the current VOC content limits of South Coast Air Quality Management District Regulation 8, Rule 51.
   B) ECO products never require sealing, thereby eliminating products that produce VOC. This enhances the opportunity in obtaining this credit.

5) EQ Credit 4.4 Low Emitting Materials: Composite Wood and Agrifiber Products.
   1 Point

The inherent tensile and flexural strength of ECO products reduces or eliminates the required usage of composite wood and agrifiber products (particle board, MDF and plywood) that is necessary when using other surfacing products. These products commonly contain urea-formaldehyde resins that produce air contaminants and are potentially harmful.

ECO by COSENTINO

Project
Kennedy Green House

Location
Kennedy Green House
326 South Bedford Rd
Mt. Kisco, NY 10549

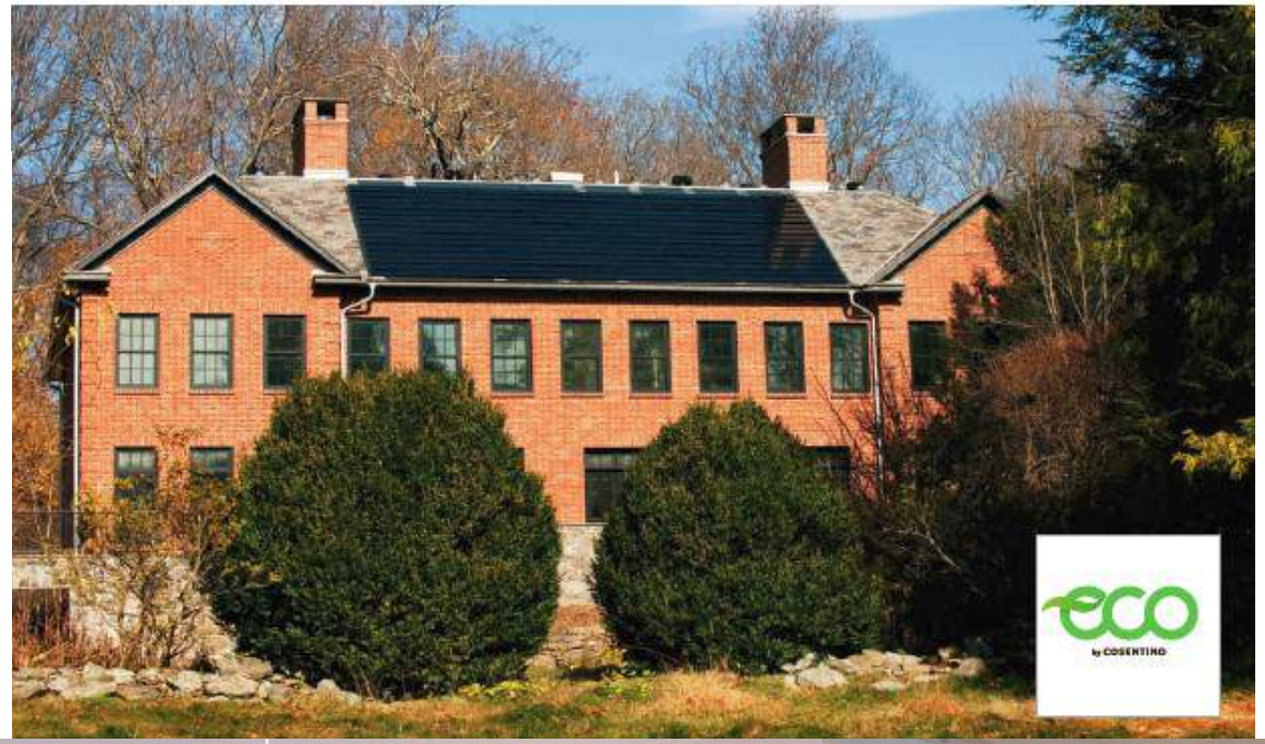
Material used
ECO™ by Cosentino

Colors
Master Bathroom - Polar Cap
Spa - White Diamond
Kitchen - Black Forest

Total area of ECO™ by Cosentino used
900 sq.ft.

ECO™ by Cosentino:

Kennedy Green House uses ECO™ by Cosentino



New York, April 2010 – The LEED certified transformation of the historic 1920's colonial home of Robert F. Kennedy Jr. and Mary Richardson Kennedy showcases the latest in green technologies, sustainable building practices, and eco-friendly home products, to become the new model for green building and healthy homes nationwide.

Kennedy Green House focuses on maximum energy and water efficiency, and improved indoor air quality to benefit the future of our planet and health of our children. With the utmost dedication to the preservation of the planet, environmental leaders Bobby and Mary Kennedy embarked upon a LEED certified renovation to transform their 1920's home into an extension of their personal environmental commitments. For more information visit www.kennedygreenhouse.com

Eliminacion de desechos en vertederos.

Minimizacion de las emisiones en todas las fases de produccion.

Reduccion del uso de energia a la hora de crear nuevas materias primas.

Depuracion del 99% de las emisiones de los Compuestos Organicos Volatiles (COV'S)

Oportunidad de "devolver la vida" a productos inservibles.

No utilizacion de disolventes para la limpieza posterior de la maquinaria.

Reduccion en el uso de fuentes naturales y deforestacion.

Uso de avanzados sistemas de filtracion.

Reduccion del uso de agua. El 94% del agua utilizada es reciclada.

Todos los elementos son reutilizables.

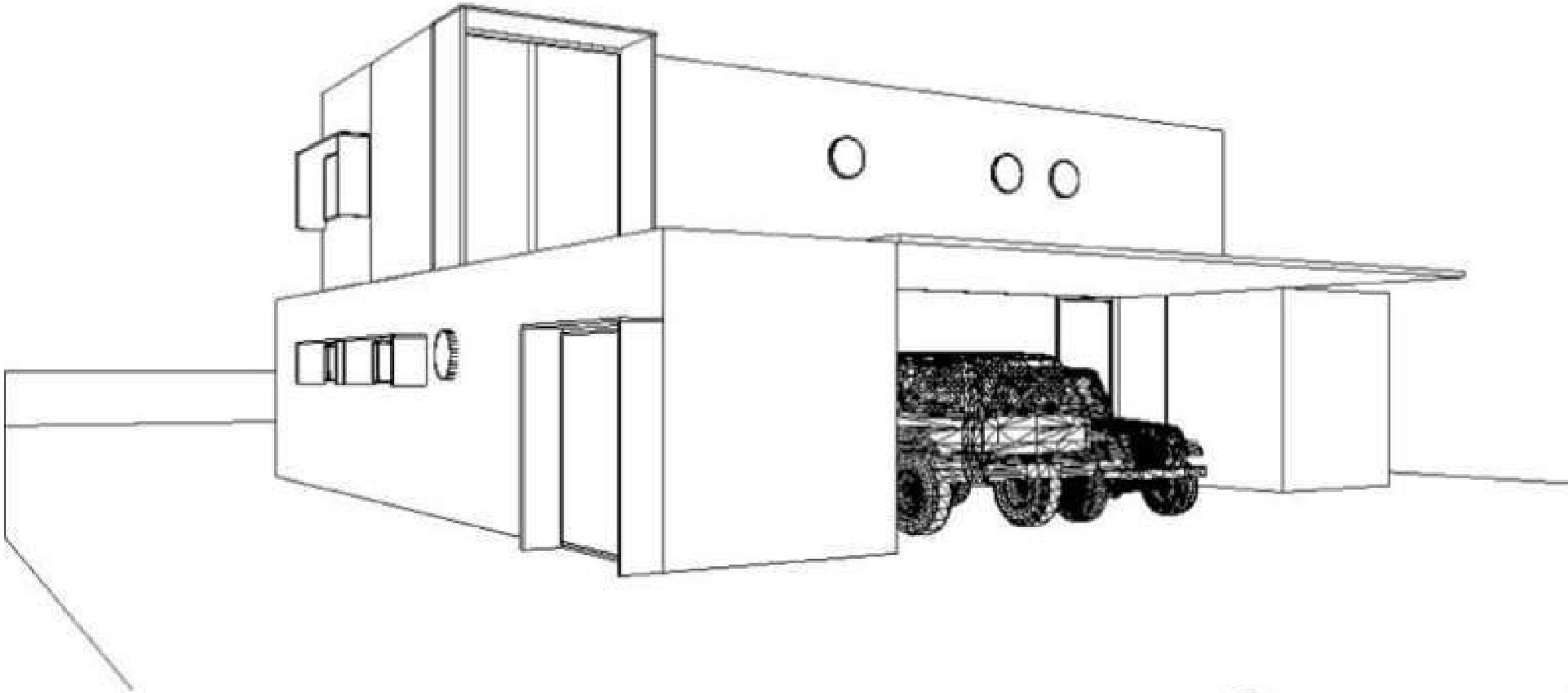

eco
by CORRENTINO

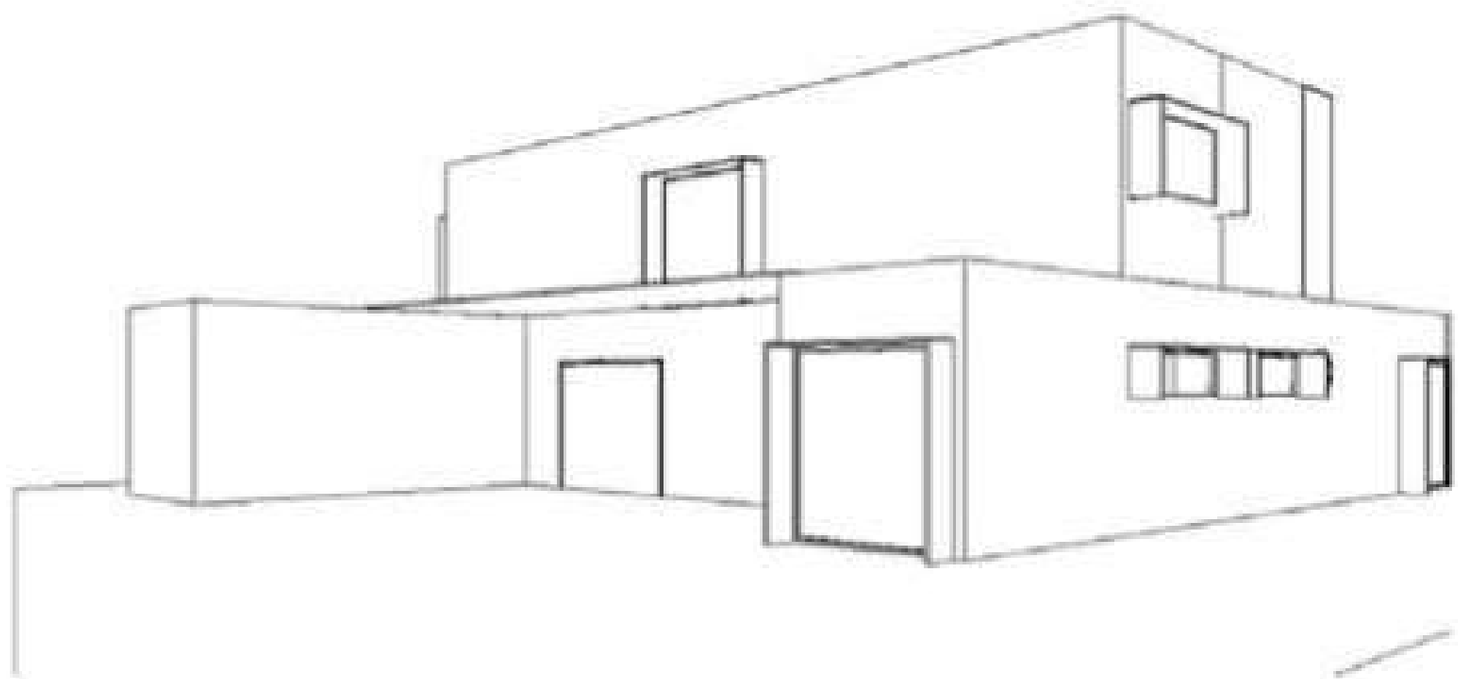

REUSE
REDUCE
RECYCLE

¿qué diferencia al material reciclado?

	ECObyCosentino	Ceramic
Energetic consumption (kWh/m2)	14	32
Water consumption (L/m2)	30	60

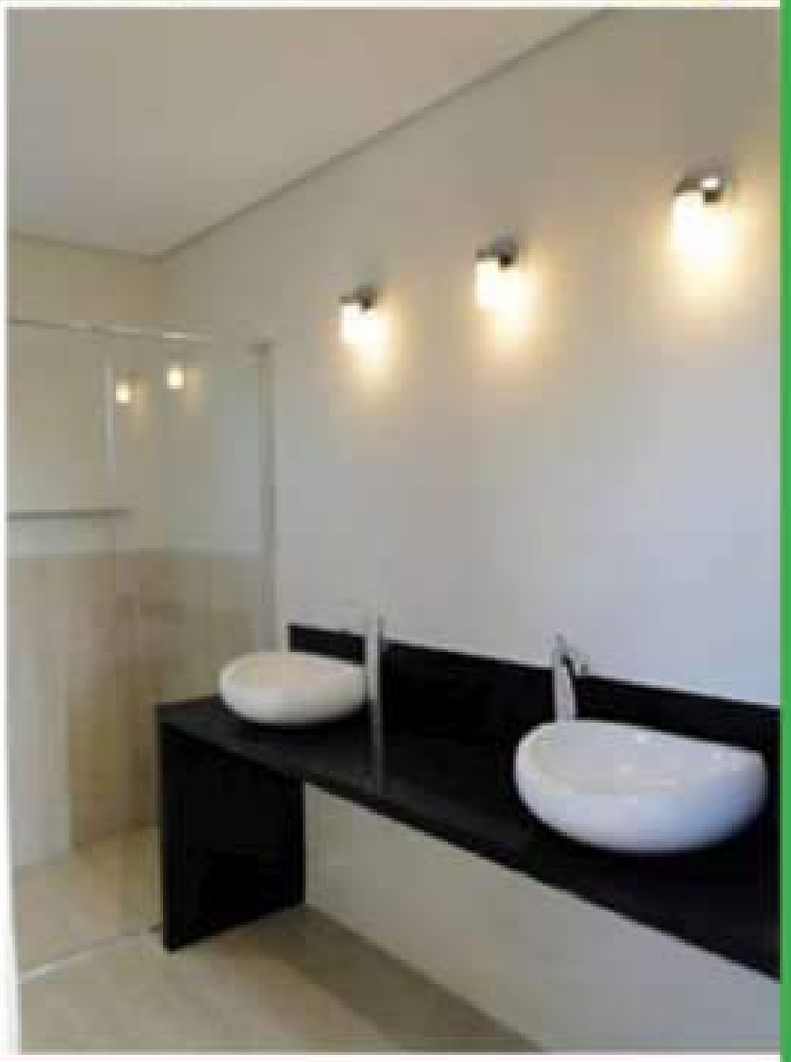
- ECO gass emissions: Null
- ECO pollutants in disposed water: Null





COSENTINO

eco by COSENTINO



Physical attributes and advantages of recycled surfaces

- EN test Standards available
- ASTM test Standars available

Hardness / Scratch resistance

- In accordance with MOHS scale ECO recycled surfaces have 5 to 7 grade. It is similar to granite.
- Comparable Abrasive index rating in accordance with ASTM C241/ASTM C1353

- Limestone 1-20
- Slates 4-20
- Sandstones 4-24
- Marble 15-50
- Granites 50-150
- ECO 67-104

Physical attributes and advantages of recycled surfaces

Stain resistance

- Production methods and composition of slabs results in a virtually non-porous material which is highly resistant to staining
- Comparable Water Absorption rating in accordance with ASTM C97

Medium density Limestone	7.5%
Slate	0.25 to 0.45%
Marble	0.20%
Granite	0.07 to 0.40%
Quartz agglomerate	0.03%
Recycled surfaces	0.04%

- Recycled surfaces require no initial or ongoing sealants
- Unaffected by most common household products, foods and liquids
- Low maintenance costs

Physical attributes and advantages of recycled surfaces

Flexural strength

- Average of 4 to 5 times the flexural strength of granite
- Flexural strength rating in accordance with ASTM

Granite	1-2,000psi
Quartz Agglomerate	5,840 psi
Recycled surfaces	6,283 psi

- Allows recycled slabs to flex instead of breaking
- Distinct handling advantages
- Incidence of cracking and chipping much less than with natural stone

Design Considerations

Manufacture:

- Wet cutting granite cutting machinery required
- Wet edge polishing required
- Edge profiling undertaken by CNC machinery or by hand
- Built up edges bonded and polished by hand


stop


25
SILESTONE®
ANNIVERSARY
1990
2015

dentro del hotel…


mostrador recepción


aplacado chimenea


mesa reuniones


cocina industrial


buffet


barra cafetería


separadores urinarios


revestimiento mesilla


envolvente bañera


encimera baño


mueble lavabo

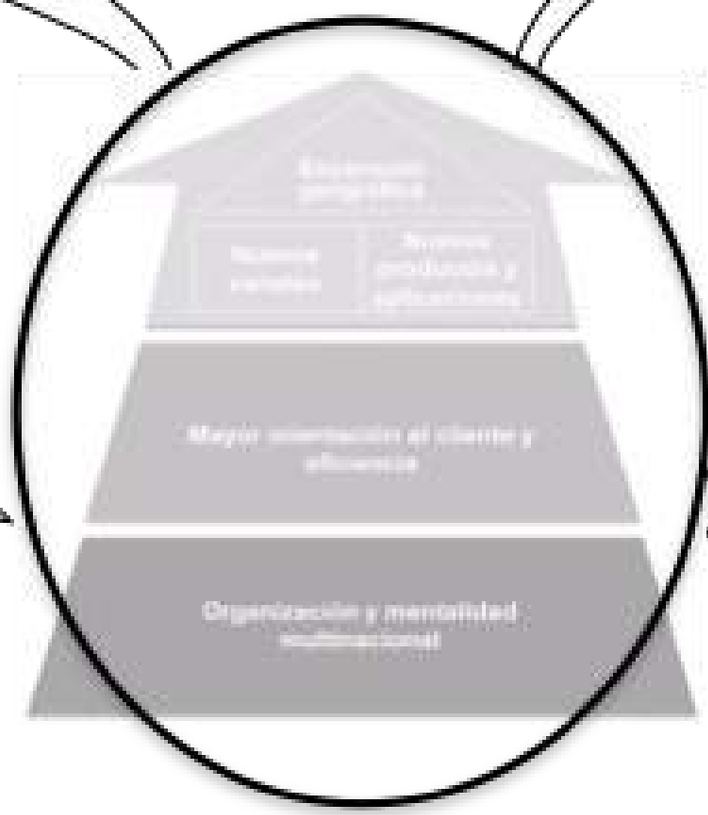

ZENIT
HOTELS


17

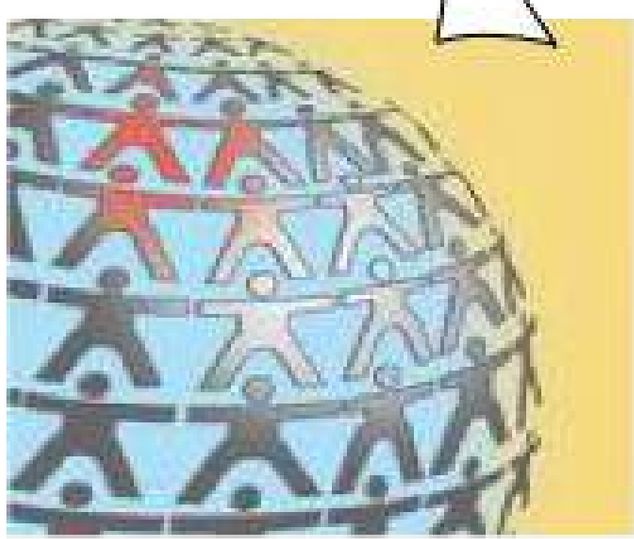
¿qué pasa en Cosentino?

Medioambiente

Seguridad



Sociedad

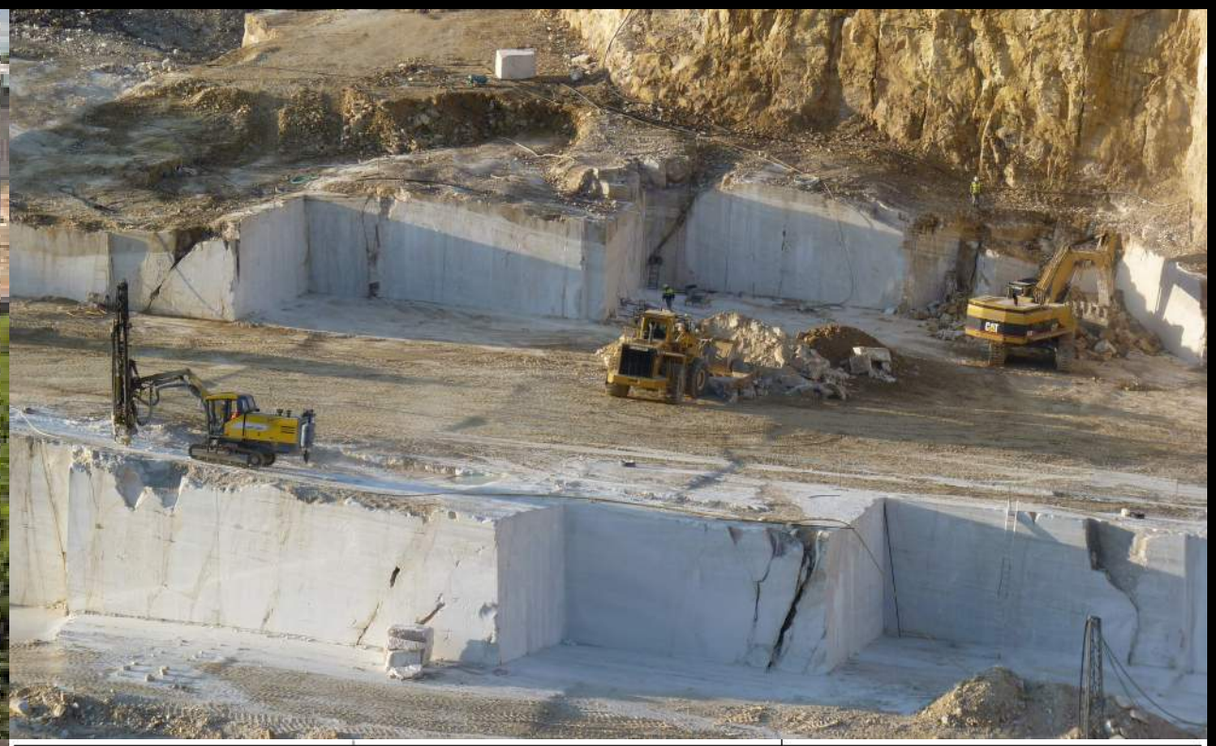


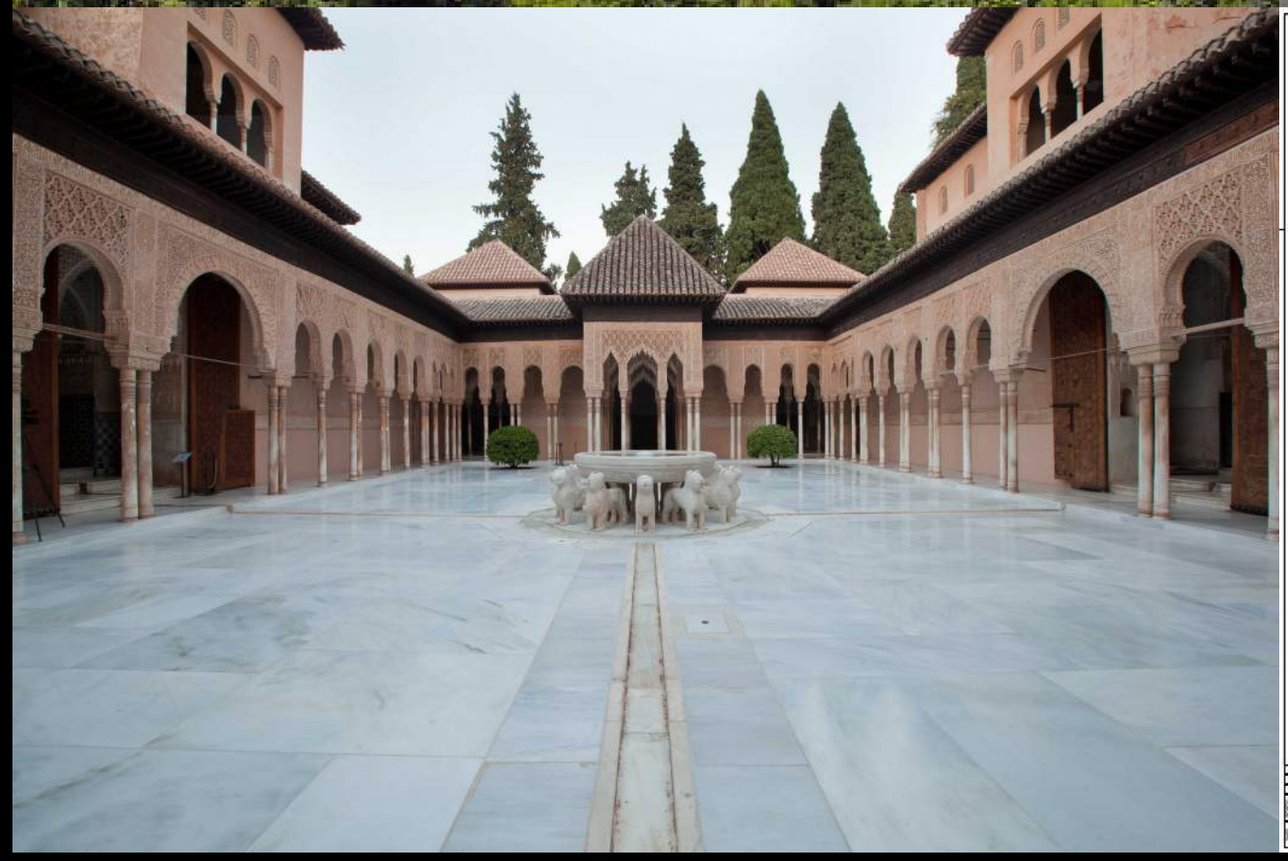
Empleados

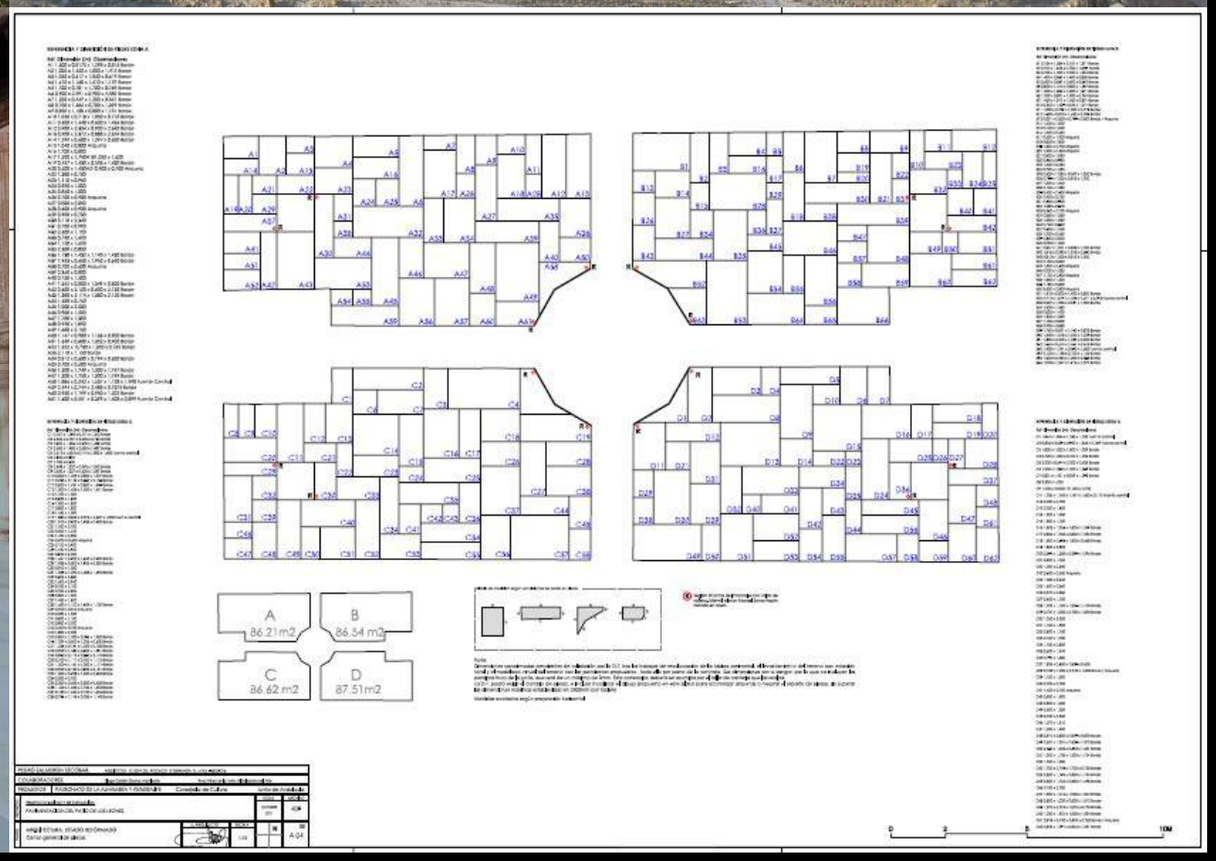
RSC Responsabilidad Social Corporativa COSENTINO

RSC
Responsabilidad Social
Corporativa

COSENTINO






A
86.21m2
B
86.54 m2
C
86.62 m2
D
87.51m2


PALACE
HOTEL


HOTEL SOROLLA


SOROLLA CENTER


SAGROLLA CENTER


SOROLLA CENTER

BUREAU VERITAS
Certification

Certification

Awarded to

COSENTINO, S.A.

ALMERIA

CTRA. A-334, KM. 39, 04860, CANTORIAL

Bureau Veritas certify that the Management System of the above organisation has been audited and found to be in accordance with the requirements of the management system standards detailed below

STANDARD

ISO 14001:2004

SCOPE OF SUPPLY

DESIGN, MANUFACTURING, FABRICATION, DISTRIBUTION, SALES AND MARKETING OF QUARTZ SURFACES. DESIGN, FABRICATION, DISTRIBUTION, SALES AND MARKETING OF NATURAL STONE PRODUCTS.

Original Approval Date: 24 July 2008

Subject to the continued satisfactory operation of the organisation's Management System this certificate is valid until:

24 July 2011

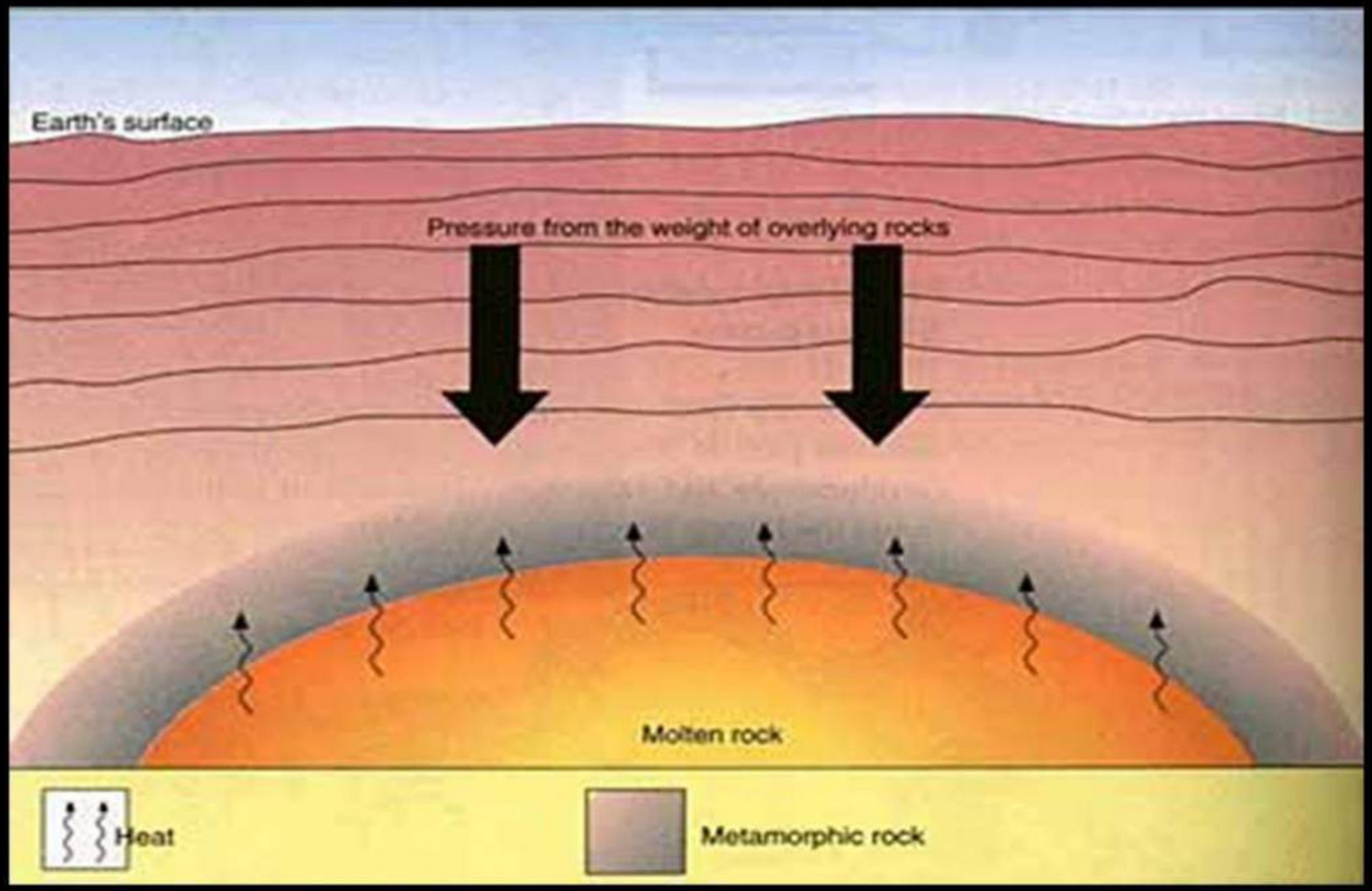
To check the validity of this certificate please call +34 [illegible]

Further clarifications regarding the scope of this certificate and the applicability of the management system requirements may be obtained by consulting the organisation.

Certificate Number: [illegible] Date: 24 July 2008

ENAC

MOTHER NATURE



El Grupo Cosentino explota la mayor planta de producción de cuarzo en España y de granito natural en Brasil. Además, la compañía distribuye sus productos en más de ochenta países.

The multinational company Cosentino distributes its products and brands to over eighty countries, and operates the largest quartz production factory in Spain and of natural granite in Brazil.


ASAH


ALVARO SIENS
ARQUITECTURA HOTELERA

PARALLEL WAVES. QATAR. 2014

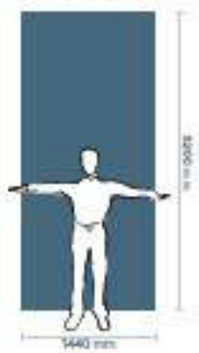
Zenith

Dekton se presenta en tablas de gran formato y mínimo espesor, ampliando las posibilidades de diseño a cosas hasta ahora desconocidas.

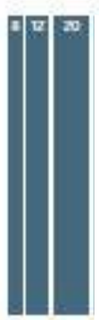
Las tablas DEKTON tienen unas medidas de 3200x1440 mm y grosores desde 8 mm hasta 20 mm, a elegir en función de la aplicación, el diseño o efecto deseado.

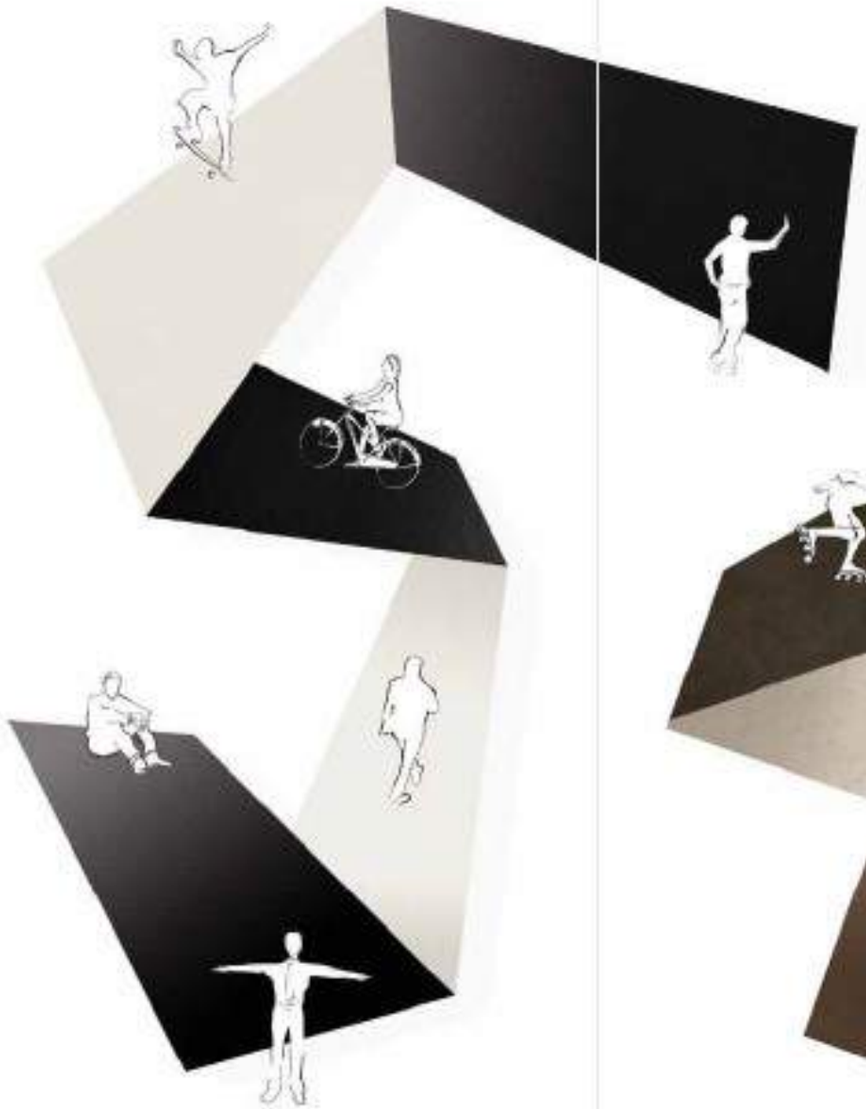
A la enorme ventaja de sus dimensiones, DEKTON suma el diseño en toda su masa, que completa su capacidad extraordinaria para desarrollarse de forma mucho más limpia, rotunda y brillante, así como diseñar superficies y espacios sin cortes, sin límites y sin interrupciones, donde color y texturas fluyen libres en todas las direcciones y sentidos, expresándose en toda su plenitud , con total libertad.

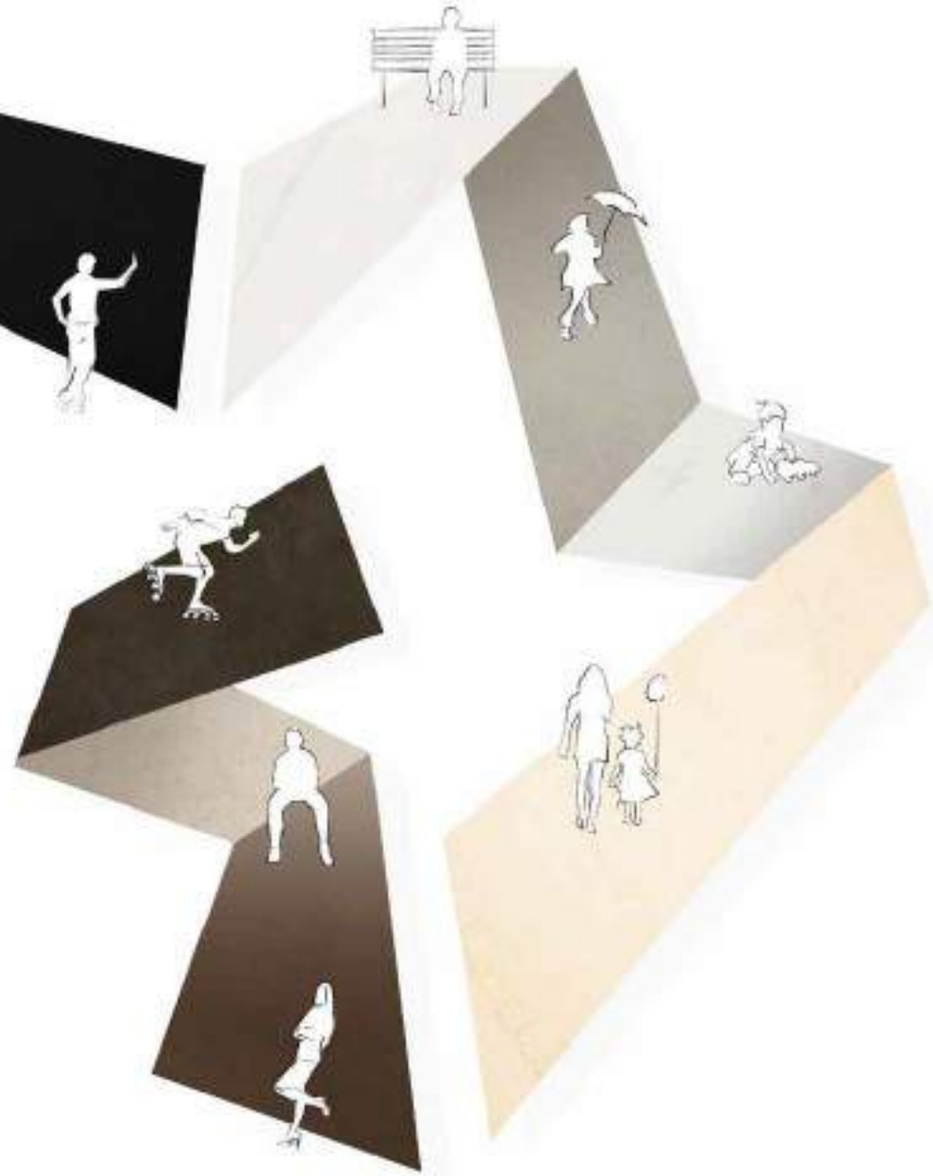
ULTRASIZE



ULTRATHICKNESS

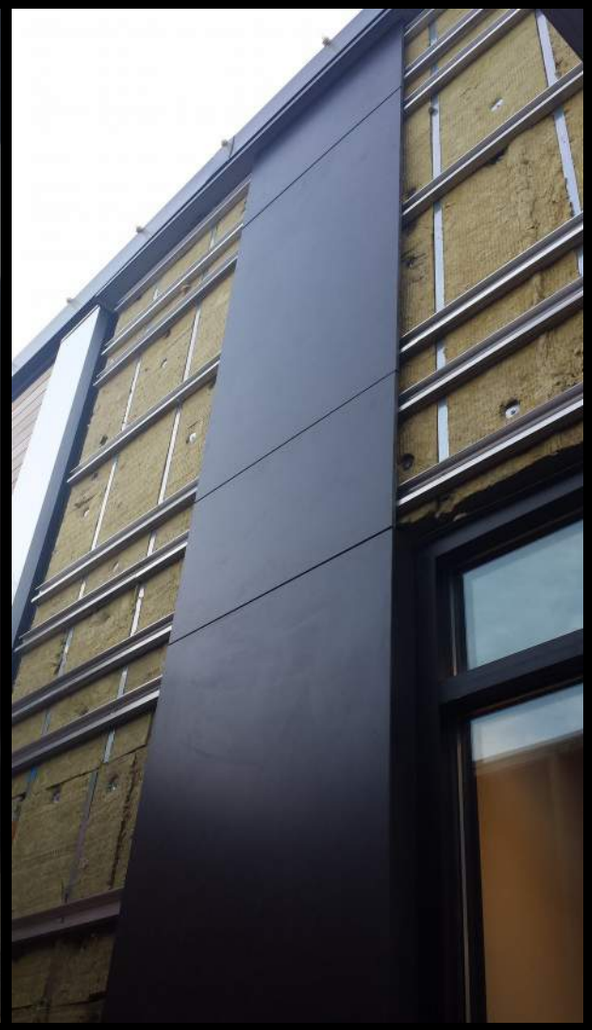




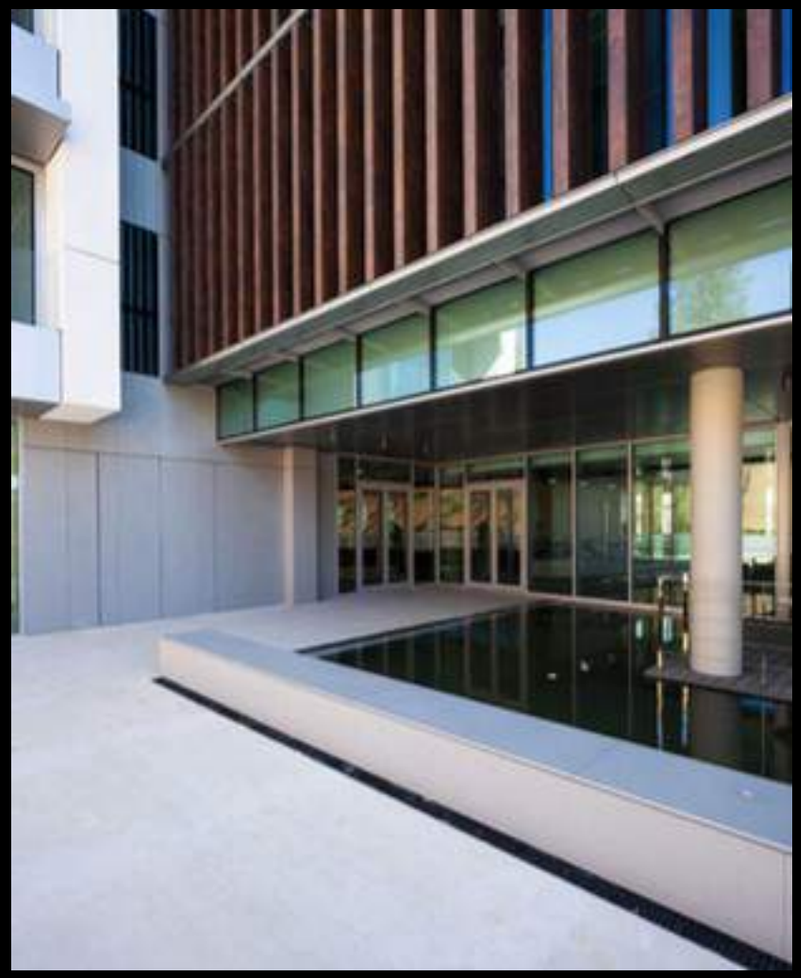


PORSCHE. CAR DEALER. Oakbrook, Illinois (USA). 2014
Domoos 12mm. Ventilated facade. Window sills (45 degree mitre edge)
Keil


PORSCHE DESIGN




cajamar




SUPERMARKET

SILESTONE by COSENTINO — THE ORIGINAL

eco by COSENTINO — RECYCLED SURFACES

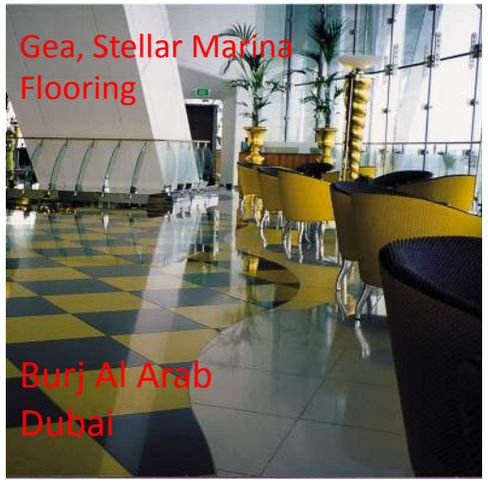
SCALEA by COSENTINO — NATURAL STONE

Sensa by COSENTINO — SENSA PROTECTION

DEKTON by COSENTINO — ULTRACOMPACT SURFACES

Product SINGLE OFFER by COSENTINO

-Worldwide known Quartz surfaces just mentioning Silestone®.
-Eco Recycled Surfaces performing best in sustainable environments thanks to C2C or EPD.
-Thousand years White Macael Marble from own quarries.
-Best Brazilian granites with own Sensa® technology (anti-stain warranty).
-Dekton® ultracompact surfaces, new big size paradigm both in & outdoors.



Product
Application
Building
Country

+1M m2 Industrial Facility. 3 hubs Almeria (ES), Vitoria (BR), Houston (US).
€ 500M Turnover. 2700 employees. Sales in 90 countries.
Own & Unique Sales Net. Trained Loyalty Clients.
Leading Design Market. Brand Recognition.
Marketing Trend Setting. Continuous & High Level Product Innovation.
Full Cut to size Capacity and Own Logistics till End User.
Best European Export Company in 2013-2014.

About COSENTINO

COSENTINO®
imagine & anticipate