

# Technical datasheet

SILESTONE®  
FAMILIES A - B - C - D

## Family A

Alpina White 08, Bamboo 08, Blanco Maple 14, Mountain Mist 12, Sienna Ridge 12, White Diamond 20.

## Family B

Aluminio Nube, Arden Blue, Bianco River, Blanco Capri, Blanco City, Blanco Matrix, Blanco Norte 14, Calypso, Cemento Spa, Charcoal Soapstone, Copper Mist, Coral Clay Colour, Cygnus15, Desert Silver, Et. Emperador (\*), Et. Marfil, Et. Marquina (\*), Et. Noir (\*), Et. Serena, Gris Expo, Helix, Iconic Black (\*), Iron Bark, Kensho, Kimbler Mist, Lagoon, Lyra, Marengo, Merope, Negro Tebas 18, Niebla, Noka, Ocean Jasper F, Ocean Storm, Pacifica, Pietra, Pulsar, Rougui, Royal Reef, Tigris Sand, Unsui, White Storm 14, Yukon.

## Family C

Arcilla Red, Ariel, Bianco Calacatta, Blanco Orion, Blanco Zeus, Cala Blue, Camden, Cincel Grey, Classic Calacatta, Classic White, Corktown, Et. Bella, Et. Calacatta Gold, Et. D'or, Et. Statuario, Ethereal Dusk, Ethereal Glow, Ethereal Haze, Ethereal Noctis, Faro White, Halcyon, Iconic White (\*), Lusso, Miami Vena, Miami White 17, Nolita, Pearl Jasmine, Poblenu, Polaris, Posidonia Green, Seaport, Silken Pearl, Snowy Ibiza, Toscana Cream, White Arabesque.

## Family D

Stellar Grey, Stellar Night, Stellar Snow 13.

(\*) With N-Boost technology.

### According to EN-15285, EN-15286, ASTM, ANSI

All the data collected in this document are based on tests carried out in independent external laboratories.

### Manufacturer's name and place of production:

Company: Cosentino S.A.U.  
Address: Carretera A-334, km 59, 04850 Cantoria (Almería) - Spain

**TECHNICAL  
CONTENT**

REV. 21 - 12/2021

# SILESTONE® TECHNICAL DATASHEET | According to EN-15285, EN-15286, ASTM, ANSI

TEST   STANDARD	DETERMINATION	Unit	FAMILY A	FAMILY B	FAMILY C	FAMILY D
<b>Adherence for cementitious adhesives based on</b> EN 1348	Initial adhesion	N/mm <sup>2</sup>	3.5	3.5	3.5	3.5
	Standard deviation	N/mm <sup>2</sup>	0.20	0.20	0.20	0.20
<b>Thermal conductivity</b> EN 10456	Thermal conductivity	W/m-K	1.3	1.3	1.3	1.3
<b>Fire reaction</b> EN 13501-1	Fire reaction	-	A2 <sub>fl</sub> s1 / A2,s2,d0	A2 <sub>fl</sub> s1 / A2,s2,d0	A2 <sub>fl</sub> s1 / A2,s2,d0	A2 <sub>fl</sub> s1 / A2,s2,d0
<b>Slip resistance (Polished)</b> EN 14231	PTV wet	-	8	8	5	11
	PTV dry	-	46	43	37	64
<b>Slip resistance (Suede)</b> EN 14231	PTV wet	-	10	9	10	NA
	PTV dry	-	44	40	40	NA
<b>Water absorption, densities</b> EN 14617-1	Apparent density	Kg/m <sup>3</sup>	2453	2287	2133	2364
	Water absorption	%	≤ 0.05 W <sub>4</sub>	≤ 0.05 W <sub>4</sub>	≤ 0.05 W <sub>4</sub>	≤ 0.05 W <sub>4</sub>
<b>Flexural strength</b> EN 14617-2	Flexural strength	MPa	≥ 25 F <sub>3</sub>	≥ 40 F <sub>4</sub>	≥ 40 F <sub>4</sub>	≥ 25 F <sub>3</sub>
<b>Resistance to abrasion</b> EN 14617-4	Resistance to abrasion	mm	≤ 33 A <sub>3</sub>	≤ 29 A <sub>4</sub>	≤ 33 A <sub>3</sub>	≤ 33 A <sub>3</sub>
<b>Thermal shock resistance</b> EN 14617-6	Change in dynamic elastic mod.	%	13	2	- 3.1	- 2.3
	Change in mass	%	- 0.01	0.0	0.0	0.0
<b>Resistance to impact</b> EN 14617-9	Resistance to impact	cm/J	28.5 / 2.8	66 / 6.5	151 / ≥ 14.8	25 / 2.4
<b>Thermal expansion coefficient</b> EN 14617-11	Thermal expansion coefficient	10 <sup>-6</sup> .°C <sup>-1</sup>	29	34	45	27
<b>Electric resistivity</b> EN 14617-13	Volume	TΩ*m	9.3	19.7	400	0.93
	Surface	(1000V)	18.7	670	790	183
<b>Absorption and bulk gravity</b> ASTM C97	Water absorption	%	0.01	0.02	0.02	0.03
	Bulk specific gravity	%	154.1	149.8	133.6	148.9
<b>Modulus of rupture</b> ASTM C99	Dry conditions (d/thickness)	psi	3757	7478	10951	5155
	Wet conditions (d/thickness)	psi	3887	7549	12889	4802
<b>Compressive strength</b> ASTM C170	Compressive strength	psi	27321	33961	36670	28354
<b>Density</b> ASTM C373	Average water absorption	-	*	*	*	*

NOTE: (A) Affected. (NA) Not Affected. (\*) Ongoing tests.

# SILESTONE® TECHNICAL DATASHEET | According to EN-15285, EN-15286, ASTM, ANSI

TEST   STANDARD	DETERMINATION	Unit	FAMILY A	FAMILY B	FAMILY C	FAMILY D
<b>Thermal shock resistance</b> ASTM C484	Defects	-	No visible defects	No visible defects	No visible defects	No visible defects
<b>Breaking strength</b> ASTM C648	Average breaking strength	lbf	10681	12716	15426	8973
<b>Resistance to common household and cleaning chemicals</b> ASTM C650-04	Acetic acid, 3%	-	Visual: NA Pencil: NA	Visual: NA Pencil: NA	Visual: NA Pencil: NA	Visual: NA Pencil: NA
	Acetic acid, 10%	-	Visual: NA Pencil: NA	Visual: NA Pencil: NA	Visual: NA Pencil: NA	Visual: NA Pencil: NA
	Ammonium chloride, 100 g/L	-	Visual: NA Pencil: NA	Visual: NA Pencil: NA	Visual: NA Pencil: NA	Visual: NA Pencil: NA
	Citric acid solution, 30 g/L	-	Visual: NA Pencil: NA	Visual: NA Pencil: NA	Visual: NA Pencil: NA	Visual: NA Pencil: NA
	Citric acid solution, 100 g/L	-	Visual: NA Pencil: NA	Visual: NA Pencil: NA	Visual: A Pencil: NA	Visual: NA Pencil: NA
	Lactic acid, 5%	-	Visual: NA Pencil: NA	Visual: NA Pencil: NA	Visual: A Pencil: NA	Visual: NA Pencil: NA
	Phosphoric acid, 3%	-	Visual: NA Pencil: NA	Visual: NA Pencil: NA	Visual: NA Pencil: NA	Visual: NA Pencil: NA
	Phosphoric acid, 10%	-	Visual: NA Pencil: NA	Visual: NA Pencil: NA	Visual: NA Pencil: NA	Visual: NA Pencil: NA
	Sulfamic acid, 30 g/L	-	Visual: NA Pencil: NA	Visual: NA Pencil: NA	Visual: NA Pencil: NA	Visual: NA Pencil: NA
Sulfamic acid, 100 g/L	-	Visual: NA Pencil: NA	Visual: NA Pencil: NA	Visual: NA Pencil: NA	Visual: NA Pencil: NA	
<b>Resistance to swimming pool chemicals</b> ASTM C650-04	Sodium hypochlorite sol., 20 mg/L	-	Visual: NA Pencil: NA	Visual: NA Pencil: NA	Visual: NA Pencil: NA	Visual: NA Pencil: NA
<b>Resistance to chemicals; acids and bases</b> ASTM C650-04	Hydrochloric acid solution, 3%	-	Visual: NA Pencil: NA	Visual: NA Pencil: NA	Visual: NA Pencil: NA	Visual: NA Pencil: NA
	Hydrochloric acid solution, 18%	-	Visual: NA Pencil: NA	Visual: A Pencil: NA	Visual: NA Pencil: NA	Visual: NA Pencil: NA
	Potassium hydroxide, 30 g/L	-	Visual: NA Pencil: NA	Visual: A Pencil: NA	Visual: A Pencil: NA	Visual: A Pencil: NA
	Potassium hydroxide, 100 g/L	-	Visual: NA Pencil: NA	Visual: A Pencil: NA	Visual: A Pencil: NA	Visual: A Pencil: NA
<b>Flexural properties white ceramic materials</b> ASTM C674	-	psi	4522	7805	11479	5493
<b>Flexural strength</b> ASTM C880	Dry conditions	-	4039	5857	9847	4120
	Wet conditions	-	4526	7887	11815	5060
<b>Resistance to abrasion</b> ASTM C1353	Average index of abrasion	I <sub>w</sub>	260	179	133	273
<b>Resistance to staining</b> ASTM C1378-04	Contrasting grout	-	Not affected	Not affected	Not affected	Not affected
	Back carbon lamp	-	Not affected	Not affected	Not affected	Not affected
	Waterproof black ink	-	Not affected	Not affected	Not affected	Not affected
	Washable ink	-	Not affected	Not affected	Not affected	Not affected
	Potassium permanganate sol., 1%	-	Not affected	Not affected	Not affected	Not affected
	Methylene blue solution, 1%	-	Not affected	Not affected	Not affected	Not affected
<b>Lineal thermal expansion</b> ISO 10545-8	-	-	2.92 x 10 <sup>-5</sup>	2.73 x 10 <sup>-5</sup>	3.48 x 10 <sup>-5</sup>	2.35 x 10 <sup>-5</sup>
<b>Dynamic coefficient of friction</b> ANSI A326.3	-	DCOF	0.49	0.51	0.46	0.32
<b>Mohs</b> EN 101	Mohs scratch hardness	-	6	6	6	6

NOTAS: (A) Affected. (NA) Not Affected. (\*) Ongoing tests.