

Technical data sheets

DEKTON® | DEKTON® XGLOSS | DEKTON® GRIP+
FAMILIES I - II - III - IV

Family I

Dekton®: Bromo, Domoos, Eter, Fossil, Galema, Kelya, Keon, Keranium, Kira, Kovik, Kreta, Laos, Laurent, Liquid Embers, Orix, Sirius, Sirocco, Soke, Strato, Valterra, Vera.

Dekton® XGloss: Spectra.

Family II

Dekton®: Aura15, Entzo, Kairos, Liquid Shell, Liquid Sky, Lunar, Nayla, Nilium, Opera, Portum, Rem, Uyuni, Zenith.

Dekton® XGloss: Bergen, Halo, Helena, Natura18, Olimpo, Tundra 19.

Family III

Dekton®: Aeris, Danae, Edora, Mooné, Sasea.

Dekton® XGloss: Arga, Khalo, Rio Branco, Taga.

Family IV

Dekton®: Radium, Trilium.

According to EN-14411, ANSI A137.1, EN-14231, DIN 51130, DIN 51097

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: A-334 road, km 59, postal code 04850 Cantoria (Almeria) Spain

**TECHNICAL
CONTENT**

REV. 17 - 09/2021

DEKTON® TECHNICAL DATA SHEET | According to EN-14411, ANSI A137.1 standards

	THICKNESS	FAMILY I	FAMILY II	FAMILY III	FAMILY IV
WEIGHT (kg/m ²) (lb/ft ²)	8 mm	20 (4.10)	21 (4.30)	20 (4.10)	20 (4.10)
	12 mm	30 (6.14)	32 (6.55)	30 (6.14)	31 (6.35)
	20 mm	50 (10.24)	52 (10.65)	50 (10.24)	51 (10.45)
	30 mm	77 (15.77)	77 (15.77)	77 (15.77)	76 (15.57)

FLEXURAL STRENGTH EN-ISO 10545-4 TESTED FORMAT: 200x200mm		THICKNESS	FAMILY I	FAMILY II	FAMILY III	FAMILY IV
Break strength (N)	8 mm		2304	2282	1993	2164
		Flexural resistance (N/mm ²)	55	53	50	50
Break strength (N)	12 mm		4992	4616	4947	4509
		Flexural resistance (N/mm ²)	54	48	54	49
Break strength (N)	20 mm		14174	13708	13629	13614
		Flexural resistance (N/mm ²)	54	50	52	53

TEST STANDARD	DETERMINATION	Unit	FAMILY I	FAMILY II	FAMILY III	FAMILY IV
Dimensions and surface quality EN ISO 10545-2	Length and width	%	0.11 / -0.18	0.04 / -0.08	0.04 / -0.04	0.02 / -0.02
	Thickness	%	0.50 / -0.50	4.95 / -2.20	0.53 / -0.53	-1
	Straightness of sides	%	0.01 / -0.01	0.03 / -0.03	0.01 / -0.03	0.02 / -0.02
	Rectangularity	%	0.07 / -0.16	0.04 / -0.09	0.21 / -0.21	0.08 / -0.08
	Centre curvature	%	0.04 / -0.08	-0.06	-0.06	-0.07
	Side curvature	%	0.06 / -0.06	0.02 / -0.04	0.02 / -0.04	0.02 / -0.02
	Warpage	%	-0.11	-0.07	-0.06	-0.04
	Surface quality	%	100	100	100	100
Water absorption, apparent porosity, density EN ISO 10545-3	Water absorption by boiling	%	0	0.1	0.1	0.1
	Water absorption by vacuum	%	0.1	0.1	0.1	0.1
	Open porosity	%	0.2	0.2	0.2	0.2
	Apparent relative density	g/cm ³	2.51	2.61	2.53	2.44
	Apparent density	g/cm ³	2.50	2.61	2.53	2.44
Impact resistance EN ISO 10545-5	Coefficient of restitution (COR)	-	0.85	0.85	0.85	0.92
Resistance to deep abrasion EN ISO 10545-6	Wear volume	mm ³	125	106	115	119
Determination of linear thermal expansion EN ISO 10545-8	Expansion 30-100°C	10 ⁻⁶ .°C ⁻¹	6.5	5.1	6.3	5.8

DEKTON[®] TECHNICAL DATA SHEET | According to EN-14411, ANSI A137.1 standards

TEST STANDARD	DETERMINATION	Unit	FAMILY I	FAMILY II	FAMILY III	FAMILY IV
Thermal shock resistance EN ISO 10545-9	Damage	-	No affected	No affected	No affected	No affected
Moisture expansion EN ISO 10545-10	Expansion max	mm/m	0.1	0.1	0.1	0.1
	Expansion mid	mm/m	0.0	0.0	0.0	0.1
Frost resistance EN ISO 10545-12	Damage	-	No affected	No affected	No affected	No affected
Resistance to chemicals EN ISO 10545-13	CINH ₄ / Cleaning products	Type	A (no damage)	A (no damage)	A (no damage)	A (no damage)
	Bleach/swimming pool salts	Type	A (no damage)	A (no damage)	A (no damage)	A (no damage)
	HCl (3% v/v)	Type	LA (no damage)	LA (no damage)	LA (no damage)	LA (no damage)
	Citric acid (100 g/l)	Type	LA (no damage)	LA (no damage)	LA (no damage)	LA (no damage)
	KOH (30 g/l)	Type	LA (no damage)	LA (no damage)	LA (no damage)	LA (no damage)
	HCl (18%)	Type	HA (no damage)	HA (no damage)	HA (no damage)	HA (no damage)
	Lactic acid (5%)	Type	HA (no damage)	HA (no damage)	HA (no damage)	HA (no damage)
Resistance to staining EN ISO 10545-14	Green agent	Class	5	5	5	5
	Iodine (solution)	Class	5	5	5	5
	Olive oil	Class	5	5	5	5
Absorption and bulk gravity ASTM C97	Average weight percent absorption	%	0.02	0.04	0.02	0.04
	Average density	lb/ft ³	156	160.63	157.6	152.7
Modulus of rupture ASTM C99	Average modulus of rupture dry conditions	psi	8128	9042	7369	*
	Average modulus of rupture wet conditions	psi	7490	8446	7480	*
Compressive strength ASTM C170	Average compressive strength dry conditions	psi	34409	> 55000	44882	53800
	Average compressive strength wet conditions	psi	17823	> 55000	40165	58600
Moisture expansion ASTM C370	Average moisture expansion	%	0.02	0.005	0.004	0.02
Water absorption, porosity ASTM C373	Average water absorption	%	0.03 (Impervious)	0.05 (Impervious)	0.01 (Impervious)	0.0 (Impervious)
Bond strength ASTM C482	Average bond strength	psi	423	437	357	454
Thermal shock resistance ASTM C484	Defectos	-	No defects	No defects	No defects	No defects
Relative resistance to wear (Taber abrasion) ASTM C501	Average Abrasive Wear Index	-	182.2	337	240	239

(*) Ongoing test.

(**) Consult application for these colors.

(***) n/c: does not classify.

DEKTON[®] TECHNICAL DATA SHEET | According to EN-14411, ANSI A137.1 standards

TEST STANDARD	DETERMINATION	Unit	FAMILY I	FAMILY II	FAMILY III	FAMILY IV
Breaking strength ASTM C648	Average breaking strength	lbf	3963	4896	3932	1194
Resistance to chemical substances ASTM C650	Common cleaning chemicals					
	Acetic acid, 3% (v/v)	-	Not affected	Not affected	Not affected	Not affected
	Acetic acid, 10% (v/v)	-	Not affected	Not affected	Not affected	Not affected
	Ammonium chloride, 100 g/L	-	Not affected	Not affected	Not affected	Not affected
	Citric acid solution, 30 g/L	-	Not affected	Not affected	Not affected	Not affected
	Citric acid solution, 100 g/L	-	Not affected	Not affected	Not affected	Not affected
	Lactic acid, 5% (v/v)	-	Not affected	Not affected	Not affected	Not affected
	Phosphoric acid, 3% (v/v)	-	Not affected	Not affected	Not affected	Not affected
	Phosphoric acid, 10% (v/v)	-	Not affected	Not affected	Not affected	Not affected
	Sulfamic acid, 30 g/L	-	Not affected	Not affected	Not affected	Not affected
	Sulfamic acid, 100 g/L	-	Not affected	Not affected	Not affected	Not affected
	Swimming pool chemicals					
	Sodium hypochlorite solution, 20 mg/L	-	Not affected	Not affected	Not affected	Not affected
	Acids and bases					
	Hydrochloric acid solution, 3% (v/v)	-	Not affected	Not affected	Not affected	Not affected
	Hydrochloric acid solution, 18% (v/v)	-	Not affected	Not affected	Not affected	Not affected
Potassium hydroxide, 30 g/L	-	Not affected	Not affected	Not affected	Not affected	
Potassium hydroxide, 100 g/L	-	Not affected	Not affected	Not affected	Not affected	
Flexural properties ASTM C674	Average modulus of rupture	psi	8990	8836	9005	8023
Flexural strength ASTM C880	Average flexural strength dry conditions	psi	6840	3118	5858	6068
	Average flexural strength wet conditions	psi	6205	4187	5119	6249
Static coefficient of friction (skid resistance) ASTM C1028	Static coefficient of friction dry	-	0.80	0.77	0.77	0.76
	Static coefficient of friction wet	-	0.66	0.56	0.69	0.61
Abrasion resistance ASTM C1353	Average index of abrasion	-	349	349.48	265.8	263

DEKTON[®] XGLOSS TECHNICAL DATA SHEET | According to EN-14411, ANSI A137.1

TEST STANDARD	DETERMINATION	Unit	FAMILY I	FAMILY II	FAMILY III
Dimensions and surface quality EN ISO 10545-2	Length and width	%	0.11 / -0.18	0.04 / -0.08	*
	Thickness	%	0.50 / -0.50	4.95 / -2.20	*
	Straightness of sides Rectangularity	%	0.01 / -0.01	0.03 / -0.03	*
	Centre curvature	%	0.07 / -0.16	0.04 / -0.09	*
	Side curvature	%	0.04 / -0.08	-0.06	*
	Warpage	%	0.06 / -0.06	0.02 / -0.04	*
	Surface quality	%	-0.11	-0.07	*
			%	100	100
Water absorption, apparent porosity, density EN ISO 10545-3	Water absorption by boiling Water	%	0	0.1	*
	Absortion by vacuum	%	0.1	0.1	*
	Open porosity	%	0.2	0.2	*
	Apparent relative density	g/cm ³	2.51	2.61	*
	Apparent density	g/cm ³	2.50	2.61	*
Flexural tensile strength or modulus of rupture EN ISO 10545-4	Average flexural resistance	N/mm ²	46	45	55
	Average break load	N	2548	2313	2356
	Average break strength	N	14966	13559	13818
Impact resistance EN ISO 10545-5	Coefficient of restitution (COR)	-	0.85	0.85	*
Resistance to deep abrasion EN ISO 10545-6	Wear volume	mm ³	125	106	*
Determination of linear thermal expansion EN ISO 10545-8	Expansion 30-100°C	10 ⁻⁶ .°C ⁻¹	6.5	5.1	*
Thermal shock resistance EN ISO 10545-9	Damage	-	Pass / no damage	Pass / no damage	*
Moisture expansion EN ISO 10545-10	Expansion max	mm/m	0.1	0.1	*
	Expansion mid	mm/m	0.0	0.0	*
Frost resistance EN ISO 10545-12	Damage	-	Not affected	Not affected	*
Resistance to chemicals EN ISO 10545-13	CINH ₄ / Cleaning products	Type	A (no damage)	A (no damage)	A (no damage)
	Bleach/swimming pool salts	Type	A (no damage)	A (no damage)	A (no damage)
	HCl (3% v/v)	Type	LA (no damage)	LA (no damage)	LA (no damage)
	Citric acid (100 g/l)	Type	LA (no damage)	LA (no damage)	LA (no damage)
	HCl (18%)	Type	HA (no damage)	HA (no damage)	HA (no damage)
	Lactic acid (5%)	Type	HA (no damage)	HA (no damage)	HA (no damage)

(*) Ongoing test.

(**) Consult application for these colors.

(***) n/c: does not classify.

DEKTON® XGLOSS TECHNICAL DATA SHEET | According to EN-14411, ANSI A137.1

TEST STANDARD	DETERMINATION	Unit	FAMILY I	FAMILY II	FAMILY III
Resistance to staining EN ISO 10545-14	Green agent	Class	5	5	*
	Iodine (solution)	Class	5	5	*
	Olive oil	Class	5	5	*
Absorption and bulk gravity ASTM C97	Average weight percent absorption	%	0.02	0.04	0.02
	Average density	lb/ft ³	156	160.63	157.6
Modulus of rupture ASTM C99	Average mod. of rupture dry conditions	psi	8128	9042	7369
	Average mod. of rupture wet conditions	psi	7490	8446	7480
Compressive strength ASTM C170	Average compressive strength dry conditions	psi	34409	> 55000	44882
	Average compressive strength wet conditions	psi	17823	> 55000	40165
Moisture expansion ASTM C370	Average moisture expansion	%	0.02	0.005	0.004
Water absorption, apparent porosity ASTM C373	Average water absorption	%	0.03 (Impervious)	0.05 (Impervious)	0.01 (Impervious)
Bond strength ASTM C482	Average bond strength	psi	423	437	357
Thermal shock resistance ASTM C484	Defects	.	No defects	No defects	No defects
Relative resistance to wear (Taber abrasion) ASTM C501	Average Abrasive Wear Index	-	182.2	337	240
Breaking strength ASTM C648	Average breaking strength	lbf	3963	4896	3932
Resistance to chemical substances ASTM C650	Common cleaning chemicals				
	Acetic acid, 3% (v/v)	-	Not affected	Not affected	Not affected
	Acetic acid, 10% (v/v)	-	Not affected	Not affected	Not affected
	Ammonium chloride, 100 g/L	-	Not affected	Not affected	Not affected
	Citric acid solution, 30 g/L	-	Not affected	Not affected	Not affected
	Citric acid solution, 100 g/L	-	Not affected	Not affected	Not affected
	Lactic acid, 5% (v/v)	-	Not affected	Not affected	Not affected
	Phosphoric acid, 3% (v/v)	-	Not affected	Not affected	Not affected
	Phosphoric acid, 10% (v/v)	-	Not affected	Not affected	Not affected
	Sulfamic acid, 30 g/L	-	Not affected	Not affected	Not affected
	Sulfamic acid, 100 g/L	-	Not affected	Not affected	Not affected
	Swimming pool chemicals				
Sodium hypochlorite solution, 20 mg/L	-	Not affected	Not affected	Not affected	

(*) Ongoing test.

(**) Consult application for these colors.

(***) n/c: does not classify.

DEKTON[®] XGLOSS TECHNICAL DATA SHEET | According to EN-14411, ANSI A137.1

TEST STANDARD	DETERMINATION	Unit	FAMILY I	FAMILY II	FAMILY III
Resistance to chemical substances ASTM C650	Acids and bases				
	Hydrochloric acid solution, 3% (v/v)	-	Not affected	Not affected	Not affected
	Hydrochloric acid solution, 18% (v/v)	-	Not affected	Not affected	Not affected
	Potassium hydroxide, 30 g/L	-	Not affected	Not affected	Not affected
	Potassium hydroxide, 100 g/L	-	Not affected	Not affected	Not affected
Flexural properties ASTM C674	Average modulus of rupture	psi	8990	8836	9005
Flexural strength ASTM C880	Average flexural strength dry conditions	psi	6840	3118	5858
	Average flexural strength wet conditions	psi	6205	4187	5119
Static coefficient of friction (slip resistance) ASTM C1028	Static coefficient of friction dry	-	0.96	0.96	0.96
	Static coefficient of friction wet	-	0.56	0.56	0.56
Abrasion resistance ASTM C1353	Average index of abrasion	-	349	349.48	265.8

(*) Ongoing test.

(**) Consult application for these colors.

(***) n/c: does not classify.

DEKTON® SLIPPERINESS | According to EN-14231, DIN 51130, DIN 51097 and ANSI A137.1

	EN-14231 (PTV wet)	DIN 51130	DIN 51097	ANSI A137.1 DCOF
Aeris, Aura15, Bromo, Danae, Domoos, Eclora, Entzo, Eter, Fossil, Galema, Kairos, Kelya, Keon, Keranium, Kira, Kovik, Kreta, Laos, Laurent, Liquid Embers, Liquid Sky, Lunar, Mooné, Nayla, Nilium, Orix, Radium, Rem, Saseca, Sirius, Sirocco, Soke, Strato, Trilium, Uyuni, Valterra, Vera, Zenith.	15 < Rd < 35	R9	n/c	≥ 0,42
Opera, Portum.	Rd < 15	n/c	A	≥ 0,42
Liquid Shell.	Rd < 15	R9	A	≥ 0,42
Arga, Bergen, Halo, Helena, Khalo, Natura18, Olimpo, Rio Branco, Spectra, Taga, Tundra19.	Rd < 15	n/c	n/c	≤ 0,21

DEKTON® GRIP+ SLIPPERINESS | According to EN-14231, DIN 51130, DIN 51097 and ANSI A137.1

	EN-14231 (PTV wet)	DIN 51130	DIN 51097	ANSI A137.1 DCOF
Keon, Kreta, Orix, Soke, Vera, Aeris (**), Danae (**), Eter (**), Kira (**), Laos (**), Lunar (**), Nayla (**), Nilium (**), Saseca (**), Sirocco (**), Strato (**), Trilium (**).	Rd > 45	R11	C	≥ 0.69

(*) Ongoing test.

(**) Consult application for these colors.

(***) n/c: does not classify.