

TECHNICAL INFORMATION

DEKTON

Name and identification:

Product: Dekton®

Code: Family I- II – III - IV

Name and address of manufacturer:

Company: Cosentino S.A

Address: Carretera A-334, km 59, código postal 04850 Cantoria (Almería) - Spain

TECHNICAL INFORMATION DEKTON - FAMILY I

ACCORDING TO ASTM STANDARD (AMERICAN SOCIETY FOR TESTING AND MATERIALS)

(Domoos, Sirius, Sirocco, Kadum, Strato, Keranium, Ananke, Vegha, Kelya, Valterra, Aldem, Borea, Keon, Odin, Galema, Korus, Ventus, Fossil, Orix, Kira)

Test	Standard	Determination	Units	Family I
Moisture expansion	ASTM C370	Average moisture expansion	%	0.02
Breaking strength	ASTM C648	Average breaking strength	lbf	3963
Flexural properties	ASTM C674	Average modulus of rupture	psi	10828
Water absorption, bulk density, apparent porosity and apparent specific gravity	ASTM C373	Average water absorption	%	0.03 (Impervious)
Static coefficient of friction (skid resistance)	ASTM C1028	static coef. Friction dry	-	0.80
		static coef. Friction wet	-	0.66
Wet dynamic coefficient of friction (DCOF)	ANSI A137.1 section 9.6.1	Average DCOF	-	0.57
Relative resistance to wear (Taber abrasion)	ASTM C501	Average Abrasive Wear Index		182.2
Thermal shock resistance	ASTM C484	Defects	-	No defects
Bond strength	ASTM C482	Average bond strength	psi	423
Resistance to chemical substances	ASTM C650	Common Household and cleaning chemicals		
		Acetic acid, 3% (v/v)	-	No affected
		Acetic acid, 10% (v/v)	-	No affected
		Ammonium chloride, 100 g/L	-	No affected
		Citric acid solution, 30 g/L	-	No affected
		Citric acid solution, 100 g/L	-	No affected
		Lactic acid, 5% (v/v)	-	No affected
		Phosphoric acid, 3% (v/v)	-	No affected
		Phosphoric acid, 10% (v/v)	-	No affected
		Sulfamic acid, 30 g/L	-	No affected
		Sulfamic acid, 100 g/L	-	No affected
		Swimming pool chemicals		
		Sodium hypochlorite solution, 20 mg/L	-	No affected
		Acids and bases		
		Hydrochloric acid solution, 3% (v/v)	-	No affected
		Hydrochloric acid solution, 18% (v/v)	-	No affected
		Potassium hydroxide, 30 g/L	-	No affected
Potassium hydroxide, 100 g/L	-	No affected		
Absorption and bulk gravity	ASTM C97	Average weight percent absorption	%	0.02
		Average density	lb/ft ³	156
Modulus of rupture	ASTM C99	Average modulus of rupture dry conditions	psi	8128
		Average modulus of rupture wet conditions	psi	7490
Flexural strength	ASTM C880	Average flexural strength dry conditions	psi	6840
		Average flexural strength wet conditions	psi	6205
Compressive strength	ASTM C170	Average compressive strength dry conditions	psi	34409
		Average compressive strength wet conditions	psi	17823
Abrasion resistance	ASTM C1353	Average index of abrasion	-	349

TECHNICAL INFORMATION DEKTON - FAMILY II

ACCORDING TO ASTM STANDARD (AMERICAN SOCIETY FOR TESTING AND MATERIALS)

(Zenith, Aura, Ariane, Kairos, Entzo, Aura15, Nayla, Nilium, Opera)

Test	Standard	Determination	Units	Family II
Moisture expansion	ASTM C370	Average moisture expansion	%	0.005
Breaking strength	ASTM C648	Average breaking strength	lbf	4896
Flexural properties	ASTM C674	Average modulus of rupture	psi	13997
Water absorption, bulk density, apparent porosity and apparent specific gravity	ASTM C373	Average water absorption	%	0.05 (Impervious)
Static coefficient of friction (skid resistance)	ASTM C1028	static coef. Friction dry	-	0.77
		static coef. Friction wet	-	0.56
Wet dynamic coefficient of friction (DCOF)	ANSI A137.1 section 9.6.1	Average DCOF	-	*
Relative resistance to wear (Taber abrasion)	ASTM C501	Average Abrasive Wear Index		337
Thermal shock resistance	ASTM C484	Defects	-	No defects
Bond strength	ASTM C482	Average bond strength	psi	437
Resistance to chemical substances	ASTM C650	Common Household and cleaning chemicals		
		Acetic acid, 3% (v/v)	-	No affected
		Acetic acid, 10% (v/v)	-	No affected
		Ammonium chloride, 100 g/L	-	No affected
		Citric acid solution, 30 g/L	-	No affected
		Citric acid solution, 100 g/L	-	No affected
		Lactic acid, 5% (v/v)	-	No affected
		Phosphoric acid, 3% (v/v)	-	No affected
		Phosphoric acid, 10% (v/v)	-	No affected
		Sulfamic acid, 30 g/L	-	No affected
		Sulfamic acid, 100 g/L	-	No affected
		Swimming pool chemicals		
		Sodium hypochlorite solution, 20 mg/L	-	No affected
		Acids and bases		
		Hydrochloric acid solution, 3% (v/v)	-	No affected
		Hydrochloric acid solution, 18% (v/v)	-	No affected
		Potassium hydroxide, 30 g/L	-	No affected
Potassium hydroxide, 100 g/L	-	No affected		
Absorption and bulk gravity	ASTM C97	Average weight percent absorption	%	0.04
		Average density	lb/ft ³	160.63
Modulus of rupture	ASTM C99	Average modulus of rupture dry conditions	psi	9042
		Average modulus of rupture wet conditions	psi	8446
Flexural strength	ASTM C880	Average flexural strength dry conditions	psi	3118
		Average flexural strength wet conditions	psi	4187
Compressive strength	ASTM C170	Average compressive strength dry conditions	psi	>55000
		Average compressive strength wet conditions	psi	>55000
Abrasion resistance	ASTM C1353	Average index of abrasion	-	349.48

* Test pending

TECHNICAL INFORMATION DEKTON - FAMILY III

ACCORDING TO ASTM STANDARD (AMERICAN SOCIETY FOR TESTING AND MATERIALS)

(Danae, Irok, Edora, Blanc Concrete, Gada, Bento, Makai, Aged Timber, Sterling, Sarey, Dove)

Test	Standard	Determination	Units	Family III
Moisture expansion	ASTM C370	Average moisture expansion	%	0.004
Breaking strength	ASTM C648	Average breaking strength	lbf	3932
Flexural properties	ASTM C674	Average modulus of rupture	psi	9005
Water absorption, bulk density, apparent porosity and apparent specific gravity	ASTM C373	Average water absorption	%	0.01 (Impervious)
Static coefficient of friction (skid resistance)	ASTM C1028	static coef. Friction dry	-	0.77
		static coef. Friction wet	-	0.69
Wet dynamic coefficient of friction (DCOF)	ANSI A137.1 section 9.6.1	Average DCOF	-	0.47
Relative resistance to wear (Taber abrasion)	ASTM C501	Average Abrasive Wear Index		240
Thermal shock resistance	ASTM C484	Defects	-	No defects
Bond strength	ASTM C482	Average bond strength	psi	357
Resistance to chemical substances	ASTM C650	Common Household and cleaning chemicals		
		Acetic acid, 3% (v/v)	-	No affected
		Acetic acid, 10% (v/v)	-	No affected
		Ammonium chloride, 100 g/L	-	No affected
		Citric acid solution, 30 g/L	-	No affected
		Citric acid solution, 100 g/L	-	No affected
		Lactic acid, 5% (v/v)	-	No affected
		Phosphoric acid, 3% (v/v)	-	No affected
		Phosphoric acid, 10% (v/v)	-	No affected
		Sulfamic acid, 30 g/L	-	No affected
		Sulfamic acid, 100 g/L	-	No affected
		Swimming pool chemicals		
		Sodium hypochlorite solution, 20 mg/L	-	No affected
		Acids and bases		
		Hydrochloric acid solution, 3% (v/v)	-	No affected
		Hydrochloric acid solution, 18% (v/v)	-	No affected
		Potassium hydroxide, 30 g/L	-	No affected
Potassium hydroxide, 100 g/L	-	No affected		
Absorption and bulk gravity	ASTM C97	Average weight percent absorption	%	0.02
		Average density	lb/ft ³	157.6
Modulus of rupture	ASTM C99	Average modulus of rupture dry conditions	psi	7369
		Average modulus of rupture wet conditions	psi	7480
Flexural strength	ASTM C880	Average flexural strength dry conditions	psi	5858
		Average flexural strength wet conditions	psi	5119
Compressive strength	ASTM C170	Average compressive strength dry conditions	psi	44882
		Average compressive strength wet conditions	psi	40165
Abrasion resistance	ASTM C1353	Average index of abrasion	-	265.8

TECHNICAL INFORMATION DEKTON - FAMILY IV

ACCORDING TO ASTM STANDARD (AMERICAN SOCIETY FOR TESTING AND MATERIALS)

(Trilium, Radium)

Test	Standard	Determination	Units	Family IV
Moisture expansion	ASTM C370	Average moisture expansion	%	0,02
Breaking strength	ASTM C648	Average breaking strength	lbf	1194
Flexural properties	ASTM C674	Average modulus of rupture	psi	8023
Water absorption, bulk density, apparent porosity and apparent specific gravity	ASTM C373	Average water absorption	%	0.0 (Improvious)
Static coefficient of friction (skid resistance)	ASTM C1028	static coef. Friction dry	-	0.76
		static coef. Friction wet	-	0.61
Wet dynamic coefficient of friction (DCOF)	ANSI A137.1 section 9.6.1	Average DCOF	-	*
Relative resistance to wear (Taber abrasion)	ASTM C501	Average Abrasive Wear Index		239
Thermal shock resistance	ASTM C484	Defects	-	No defects
Bond strength	ASTM C482	Average bond strength	psi	454
Resistance to chemical substances	ASTM C650	Common Household and cleaning chemicals		
		Acetic acid, 3% (v/v)	-	Not affected
		Acetic acid, 10% (v/v)	-	Not affected
		Ammonium chloride, 100 g/L	-	Not affected
		Citric acid solution, 30 g/L	-	Not affected
		Citric acid solution, 100 g/L	-	Not affected
		Lactic acid, 5% (v/v)	-	Not affected
		Phosphoric acid, 3% (v/v)	-	Not affected
		Phosphoric acid, 10% (v/v)	-	Not affected
		Sulfamic acid, 30 g/L	-	Not affected
		Sulfamic acid, 100 g/L	-	Not affected
		Swimming pool chemicals		
		Sodium hypochlorite solution, 20 mg/L	-	Not affected
		Acids and bases		
		Hydrochloric acid solution, 3% (v/v)	-	Not affected
		Hydrochloric acid solution, 18% (v/v)	-	Not affected
		Potassium hydroxide, 30 g/L	-	Not affected
Potassium hydroxide, 100 g/L	-	Not affected		
Absorption and bulk gravity	ASTM C97	Average weight percent absorption	%	0.04
		Average density	lb/ft ³	152.7
Modulus of rupture	ASTM C99	Average modulus of rupture dry conditions	psi	*
		Average modulus of rupture wet conditions	psi	*
Flexural strength	ASTM C880	Average flexural strength dry conditions	psi	6068
		Average flexural strength wet conditions	psi	6249
Compressive strength	ASTM C170	Average compressive strength dry conditions	psi	53800
		Average compressive strength wet conditions	psi	58600
Abrasion resistance	ASTM C1353	Average index of abrasion	-	263

* Test pending

SLIPPERINESS DEKTON | ANSI A137.1 SECTION 9.6

Treatment	Color	Determination	Value
Dekton (without treatment)	All colours	DCOF	0,30 – 0,57
Dekton Grip	Sirocco Strato Keon Danae Irok Makai Blanc Concrete	DCOF	0,69
Dekton Grip+	Valterra Danae Sirocco Strato Ventus Keon Trilium Irok Galema Korus Blanc Concrete Makai	DCOF	0,66