

DEKTON TECHNICAL INFORMATION

Technical Information According to STANDARD EN-14411

Family I

Domoos, Sirius, Sirocco, Kadum, Strato, Keranium, Ananké, Vegha, Ventus, Korus, Galema, Keon, Kelya, Borea, Valterra, Aldem, Odin... **XGLOSS:** Spectra, Lumina, Blaze, Splendor...

Family III

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

Family II

Zenith, Aura, Ariane, Kairos, Entzo, Aura I 5... **XGLOSS:** Halo, Fiord, Tundra, Glacier...

Family IV

Trilium...

TEST	STANDARD	DETERMINATION	UD	FAMILY I	FAMILY II	FAMILY III	FAMILY IV
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
Flexural tensile strength or modulus of rupture	EN ISO 10545-4	Average flexural resistance	N/mm ²	60	67	59	60
		Average break load	N	2548	2313	2356	2568
		Average break strength	N	14966	13559	13818	15620
Water absorption, apparent porosity, density	EN ISO 10545-3	Water absorption by boiling	%	0.1	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	2.52	2.44
		Resistance to deep abrasion	EN ISO 10545-6	Wear Volume	mm ³	125	106
Dimension 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

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TEST	STANDARD	DETERMINATION	UD	FAMILY I	FAMILY II	FAMILY III	FAMILY IV
Impact resistance	EN ISO 10545-5	Coefficient of restitution (COR)	-	0.85	0.85	0.85	0.92
Determination of linear thermal expansion	EN ISO 10545-8	Expansion 30-100°C	°C ⁻¹	6.5·10 ⁻⁶	5.1·10 ⁻⁶	6.3·10 ⁻⁶	5.8·10 ⁻⁶
Thermal shock resistance	EN ISO 10545-9	Damage	-	No affected	No affected	No affected	No affected
Resistance to chemicals	EN ISO 10545-13	CINHA / Cleaning products	Type	UA (no damage)	UA (no damage)	UA (no damage)	UA (no damage)
		Bleach/swimming pool salts	Type	UA (no damage)	UA (no damage)	UA (no damage)	UA (no damage)
		HCl (3% v/v)	Type	ULA (no damage)	ULA (no damage)	ULA (no damage)	ULA (no damage)
		Citric acid (100 g/l)	Type	ULA (no damage)	ULA (no damage)	ULA (no damage)	ULA (no damage)
		KOH (30 g/l)	Type	ULA (no damage)	ULA (no damage)	ULA (no damage)	ULA (no damage)
		HCl (18%)	Type	UHA (no damage)	ULA (no damage)	ULA (no damage)	ULA (no damage)
		Lactic acid (5%)	Type	UHA (no damage)	ULA (no damage)	ULA (no damage)	ULA (no damage)
		KOH (100 g/l)	Type	UHA (no damage)	ULA (no damage)	ULA (no damage)	ULA (no damage)
Resistance to staining	EN ISO 10545-14	Green agent	Type	5	5	5	5
		Red agent	Type	-	-	-	-
		Iodine (solution)	Type	5	5	5	5
		Olive Oil	Type	5	5	5	5

DEKTON TECHNICAL INFORMATION

Technical Information According to ASTM Standard
(American Society for Testing and Materials)

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TEST	STANDARD	DETERMINATION	UD	FAMILY I	FAMILY II	FAMILY III	FAMILY IV
Moisture expansion	ASTM C370	Average moisture expansion	%	0.02	0.005	0.004	0,02
Breaking strength	ASTM C648	Average breaking strength	lbf	3,963	4,896	3,932	1194
Flexural properties	ASTM C674	Average modulus of rupture	psi	10,828	13,997	9,005	8023
Water absorption, bulk density, apparent porosity and apparent specific gravity	ASTM C373	Average water absorption	%	0.03 (Impervious)	0.05 (Impervious)	0.01 (Impervious)	0,0 (Impervious)
Static coefficient of friction (skid resistance)	ASTM C1028	static coef. Friction dry	-	0.80	0.77	0.77	0,76
		static coef. Friction wet	-	0.66	0.56	0.69	0,61
Wet dynamic coefficient of friction (DCOF)	ANSI A137.1 section 9.6.1	Average DCOF	-	0.57	*	0.47	*
Relative resistance to wear (Taber abrasion)	STM C501	Average Abrasive Wear Index		182,2	337	240	239
Thermal shock resistance	ASTM C484	Defects	-	No defects	No defects	No defects	No defects
Bond strength	ASTM C482	Average bond strength	psi	423	437	357	454
Common Household and cleaning chemicals							
Resistance to chemical substances	ASTM C650	Acetic acid, 3% (v/v)	-	No affected	No affected	No affected	No affected
		Acetic acid, 10% (v/v)	-	No affected	No affected	No affected	No affected
		Ammonium chloride, 100 g/L	-	No affected	No affected	No affected	No affected
		Citric acid solution, 30 g/L	-	No affected	No affected	No affected	No affected
		Citric acid solution, 100 g/L	-	No affected	No affected	No affected	No affected
		Lactic acid, 5% (v/v)	-	No affected	No affected	No affected	No affected
		Phosphoric acid, 3% (v/v)	-	No affected	No affected	No affected	No affected
		Phosphoric acid, 10% (v/v)	-	No affected	No affected	No affected	No affected
		Sulfamic acid, 30 g/L	-	No affected	No affected	No affected	No affected
		Sulfamic acid, 100 g/L	-	No affected	No affected	No affected	No affected

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TEST	STANDARD	DETERMINATION	UD	FAMILY I	FAMILY II	FAMILY III	FAMILY IV		
Swimming pool chemicals									
Resistance to chemical substances	ASTM C650	Sodium hypochlorite solution, 20 mg/L		No affected	No affected	No affected	No affected		
		Acids and bases							
		Hydrochloric acid solution, 3% (v/v)		No affected	No affected	No affected	No affected		
		Hydrochloric acid solution, 18% (v/v)		No affected	No affected	No affected	No affected		
Absorption and bulk gravity	ASTM C97	Potassium hydroxide, 30 g/L		No affected	No affected	No affected	No affected		
		Potassium hydroxide, 100 g/L		No affected	No affected	No affected	No affected		
Modulus of rupture	ASTM C99	Average weight percent absorption	%	0.02	0.04	0.02	0,04		
		Average density	lb/ft ³	156	160.63	157.6	152,7		
Flexural strength	ASTM C880	Average modulus of rupture dry conditions	psi	8,128	9,042	7,369	*		
		Average modulus of rupture wet conditions	psi	7,490	8,446	7,480	*		
Compressive strength	STM C170	Average flexural strength dry conditions	psi	6,840	3,118	5,858	6068		
		Average flexural strength wet conditions	psi	6,205	4,187	5,119	6249		
Abrasion resistance	ASTM C1353	Average compressive strength dry conditions	psi	34,409	>55,000	44,882	53800		
		Average compressive strength wet conditions	psi	17,823	>55,000	40,165	58600		
Abrasion resistance	ASTM C1353	Average index of abrasion	-	349	349.48	265.8	263		

* Test pending