



Durasein®

Product Data Sheet

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DOCUMENT INFO
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Our extraordinary solid surface is a homogeneous, stone-like material that is non-porous and non-toxic. Made up of two-thirds natural minerals (alumina trihydrate derived from bauxite) and one-third high performance acrylic resin (polymethyl methacrylate) and pigments. Due to this high mineral content, our material is incredibly dense, yet able to be fabricated with standard woodworking tools. And totally thermoformable.

PROPERTY	TEST	TYPICAL RESULT*
PHYSICAL PROPERTIES		
Density	ASTM D792 (ISO 1183)	1.7 g/cm ³
Approximate Weight per Square Foot 6 mm (1/4")		2.2 lbs.
Approximate weight per Square Foot 12 mm (1/2")		4.4 lbs.
Thermal Expansion	ASTM D696 (ISO 11359-2)	3.5 x 10 ⁻⁵ m/m °C (2.1 x 10 ⁻⁵ in./in. °F)
Hardness – Rockwell (M)	ISO 19712-2 (ASTM D785)	>85
Hardness – Barcol Impressor	ISO 19712-2 (ASTM D2583)	70
MECHANICAL PROPERTIES		
Flexural Modulus	ASTM D790 (ISO 178)	1.4 x 10 ⁶ psi (9887 MPa)
Flexural Strength	ASTM D790 (ISO 178)	10,100 psi (69.6 MPa)
Tensile Modulus	ASTM D638 (ISO 527-2)	6657 psi (45.9 MPa)
Tensile Strength	ASTM D638 (ISO 527-2)	1.4 x 10 ⁶ psi (9890 MPa)
Tensile Elongation at Break	ASTM D638 (ISO 527-2)	0.50%
IZOD Notched Impact	ASTM D256	2 J/m
Deflection Test	ASTM D648 (ISO 75)	233 °F (112 °C)
FITNESS FOR USE		
Consistency of Color	ISO 19712-2	Pass (No noticeable base color change along the length of a seam)
Light Resistance (Xenon Arc)	ISO 19712-2	Pass
Colorfastness	CSA B45.5-22/IAPMO Z124-22	Pass
Weatherability	ASTM G155	ΔE* ₉₄ < 1.0 in 1,000 hrs. No cracks, blisters, flaking and other cosmetic defects after testing
Load Test	ISO 19712-2	Pass, Residual deflection no greater than or equal to 0.25 mm No cracks or breaks after the test
Resistance to Impact by Large-diameter Ball	ISO 19712-2	Pass
Impact Strength	ASTM D5420	28 J (Mean Failure Energy), 803 mm (Mean Failure Height)
Wear and Cleanability	CSA B45.5-22/IAPMO Z124-22	Pass
Stain Resistance	CSA B45.5-22/IAPMO Z124-22	Pass
Stain/Chemical-Resistance Test	ISO 19712-2	Pass
Resistance to Cigarette Burns	ISO 19712-2, CSA B45.5-22/IAPMO Z124-22	Pass
Ignitability Test	CSA B45.5-22/IAPMO Z124-22	Pass
Resistance to Dry Heat	ISO 19712-2	Pass
Resistance to Wet Heat	ISO 19712-2	Pass
Boiling Water Resistance	NEMA LD 3-3.5	No visible change
High Temperature Resistance	NEMA LD 3-3.6	No effect



FITNESS FOR USE CONTINUED		
Hot/Cold Cycle Water-Resistance Test	ISO 19712-2	Pass
Water Absorption	ASTM D570 (ISO 62)	0.04% (24 hr. Short Term)
Freeze Resistance Test	ASTM C666	0.30% length change, -0.04% mass loss No defects found after testing.
Dimensional Stability	ISO 4586-2	Pass
Resistance to Surface Wear	ISO 4586-2	Surface wear (0.02%) per 25 revolutions
Dynamic Coefficient of Friction (Slip Resistance)	ANSI A326.3/137.1	0.39 DCOF
Surface Frictional Properties	ANSI 303	109 PTV (dry), 17 PTV (wet) matte finish
Slip Resistance - Pendulum Test	EN 16165	88 (dry) PTV, 31 (wet) PTV 60-grit sanded 84 (dry) PTV 45 (wet) PTV 80-grit sanded
Fungal Resistance	ASTM G21	No observed growth on product
Bacterial Resistance	ASTM G22	No observed growth on product
FIRE PERFORMANCE CHARACTERISTICS		
Flammability, Surface Burning Characteristics of Building Materials (United States)	NFPA 101®, Life Safety Code®	Class A
Flame Spread Developed Index, Surface Burning Characteristics of Building Materials (United States)	ASTM E84 (ANSI/UL 723)	Flame Spread Index (FSI) <25
Smoke Developed Index, Surface Burning Characteristics of Building Materials (United States)	ASTM E84 (ANSI/UL 723)	Smoke Developed Index (SDI) <25
Flammability of Interior Materials, Motor Vehicles (United States)	FMVSS 302	Pass (DNI/Does not ignite)
Flame Spread Surface Burning Characteristics of Flooring, Floor Covering, and Miscellaneous Materials (Canada)	CAN/ULC S102.2	Flame Spread Value 0
Smoke Developed Burning Characteristics of Flooring, Floor Covering, and Miscellaneous Materials (Canada)	CAN/ULC S102.2	Smoke Developed Value 0
Flammability of Interior Materials, Motor Vehicles (Canada)	CMVSS 302	Pass (DNI/Does not ignite)

*Typical results for 12 mm solid colors. Values indicated are not intended for engineering calculations. Values may vary by aesthetic.

Durasein® sinks and lavatories meet CSA B45.5-22/IAPMO Z124-22 standard for plastic plumbing fixtures. Durasein® sinks and lavatories are in compliance with the Uniform Plumbing Code and the International Plumbing Code for all 50 states of the United States. Lavatories are in compliance with HUD Bulletin No. 73a (UM No. 73a) requirements. Durasein® sinks and lavatories meet CSA B45.5-22/IAPMO Z124-22 standard for plastic plumbing fixtures and are in compliance with the National Plumbing Code of Canada. Durasein® sinks and lavatories are Product-Approved by the Massachusetts Board of State Examiners of Plumbers and Gas Fitters and are listed in the MA Accepted Plumbing Products Online System.

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