

— TECHNICAL DATA SHEET

Viana Sintered Stone Slabs.

Viana Sintered Stone is a premium architectural surface composed of 100% natural mineral aggregates — quartz, feldspar, silica, and mineral oxides — compacted under **15,000 tons of hydraulic pressure** and fired at **1,250°C**. The process fuses the minerals at a molecular level, producing a fully vitrified slab with **zero resins, zero plastics, and zero VOCs**. The following performance data is provided for slabs of **20 mm thickness in a polished finish**.

Note: Values shown are indicative averages across the Viana Sintered Stone collection and may vary with thickness, color, and finish. For project-specific specification, contact Viana directly.

— TEST RESULTS

Performance verified to **ISO, ASTM, and EN** standards.

PHYSICAL PROPERTIES		
Water Absorption	ISO 10545-3	< 0.1 %
Water Absorption	EN 14411	Group Bla (< 0.5%)
Bulk Density	ISO 10545-3	2.3 – 2.5 g/cm ³
Apparent Porosity	ASTM C373	< 0.08 %
MECHANICAL PROPERTIES		
Flexural Strength	ISO 10545-4	> 50 N/mm ²
Flexural Strength	ASTM C880	> 7 250 psi (50 MPa)
Modulus of Rupture	ASTM C99	> 10 000 psi (69 MPa)
Compressive Strength	ASTM C170	> 58 000 psi (400 MPa)
Impact Resistance	ISO 10545-5	> 55 (restitution coefficient)
Bond Strength	ASTM C482	> 250 psi (1.72 MPa)

DURABILITY & ENVIRONMENTAL		
Mohs Hardness	EN 101	7 – 8
Abrasion Resistance (deep)	ISO 10545-6	< 175 mm ³
Abrasion Resistance (surface)	ISO 10545-7	Class 5 (highest rating)
Thermal Shock Resistance	ISO 10545-9	Passes — Resistant
Freeze-Thaw Resistance	ISO 10545-12	Passes — Resistant
Heat Resistance	Direct contact	Up to 300°C (572°F)
Thermal Expansion	ISO 10545-8	6.5 × 10⁻⁶ K⁻¹
UV Stability	DIN 51094	Class A+ — Color stable
SURFACE PERFORMANCE		
Stain Resistance	ISO 10545-14	Class 5 (highest)
Chemical Resistance (acids)	ISO 10545-13	Class A (highest)
Chemical Resistance (alkalis)	ISO 10545-13	Class A (highest)
Graffiti Resistance	UNI 11370	Easily removed, Level 1
Food Safety	NSF / ANSI 51	Certified — Food contact safe
SLIP & FIRE SAFETY		
Slip Resistance (wet)	DIN 51130	R9 – R11 (finish dependent)
Static Coefficient of Friction	ASTM C1028	Dry > 0.60 · Wet > 0.50
Fire Classification	EN 13501-1	A1 (non-combustible)
Surface Burning	ASTM E-84	Class A
Flame Spread Index	ASTM E-84	FSI < 10 — Class A
Smoke Development	ASTM E-84	SDI < 50 — Class A

— KEY CLASSIFICATIONS

A1 Fire Rating — non-combustible · **Class A** surface burning (ASTM E-84) · **Mohs 7 – 8** scratch resistance · **Water absorption < 0.1%** · **Heat resistant to 300°C** direct cookware contact · **UV Class A+** outdoor rated · **Freeze-thaw resistant** · **NSF 51** food-contact certified · **Zero resins**, zero plastics, zero VOCs.

— SPECIFIED APPLICATIONS

Where Viana Sintered Stone *belongs*.

Viana Sintered Stone is the premier specification for the most demanding architectural surfaces — indoor and outdoor, residential and commercial — wherever durability, UV stability, and heat resistance are required.

INDOOR	OUTDOOR
— Kitchen countertops & islands	— Outdoor kitchens & grills
— Waterfall edges & bookmatched islands	— Pool surrounds & cabana tops
— Fireplace surrounds & hearths	— Exterior cladding & ventilated façades
— Bathroom vanities & shower walls	— Outdoor fireplaces & pizza ovens
— Bar tops & wine rooms	— Terrace & patio surfaces
— Reception desks & feature walls	— Outdoor furniture tops
— Commercial casework & healthcare surfaces	— Hospitality outdoor spaces

— WARRANTY & CERTIFICATIONS

Viana Sintered Stone carries a **15-year comprehensive warranty** covering manufacturing defects under normal residential use. Product is **NSF 51 certified** for direct food contact, **A1 fire-rated** per EN 13501-1, **Class A** surface burning per ASTM E-84, and produced under ISO 9001-certified quality management. Every slab is color-graded and thickness-verified to architectural tolerance (± 0.3 mm) before shipment. Rated for outdoor use and freeze-thaw resistant in all climates.

— INSTALLATION NOTES

Viana Sintered Stone must be fabricated and installed by a qualified stone fabricator using appropriate diamond-edge tooling rated for high-hardness materials. Due to Mohs 7–8 hardness, sintered stone requires slower feed rates and more aggressive tooling than quartz. Wet-cutting is mandatory to prevent respirable crystalline silica generation. Available in **6mm** (wall cladding, backsplashes), **12mm** (standard countertops, vertical installations), and **20mm** (kitchen islands with waterfall edges, long-span overhangs, outdoor applications) thicknesses.

— DOCUMENT CONTROL

This technical data sheet outlines the physical, chemical, and mechanical properties of Viana Sintered Stone slabs, ensuring high durability, strength, and performance across residential, commercial, and architectural applications — both indoor and outdoor. Specifications are subject to update as manufacturing standards evolve. For the current revision and project-specific technical data, contact **Viana Surfaces** or visit vianasurfaces.com.