



SUMMARY OF PHYSICAL PROPERTY VALUES
SURFACE PLATE GRANITES

Property	Test Method	Unit of Measure	Academy Black	Sierra White
Absorption	ASTM C97	% by weight	0.11%	0.31%
Density	ASTM C97	lbs/ft ³	181.6	167.3
Bulk Specific Gravity	ASTM C97		2.92	2.65
Modulus of Rupture	ASTM C99	lbs/in ²	2,410	2,130
Compressive Strength	ASTM C170	lbs/in ²	24,200	17,180
Abrasion Resistance	ASTM C241	HA	68.7	61.0
Flexural Strength	ASTM C880	lbs/in ²	2,210	1,670
Flexural Modulus of Elasticity ¹	ASTM C1352	lbs/in ²	9.90E+06	3.38E+06
Flexural Modulus of Elasticity ²	ASTM C1352	lbs/in ²	1.10E+07	3.26E+06

¹Flexural Modulus of Elasticity tested with load application Parallel to Rift Direction

²Flexural Modulus of Elasticity tested with load application Perpendicular to Rift Direction

Note: The above values represent historical averages over approximately 10 years of laboratory testing.

Additional Information:

Coefficient of Thermal Expansion

The generic number for “granite” is 4.4×10^{-6} / F⁰ per Cold Spring Granite Co.

The following numbers are presumed to be correct but have not been verified:

Academy Black Granite 3.84×10^{-6} / F⁰

Sierra White Granite 4.2×10^{-6} / F⁰

Poisson’s Ratio for Granite 0.3