



NATURAL STONE TYPES

	SEDIMENTARY	METAMORPHIC	IGNEOUS
CALCAREOUS	Limestone Onyx Travertine	Marble	
SILICEOUS	Sandstone	Quartzite Serpentine Slate Soapstone	Basalt Granite

**This is not a complete list of stone types, but a compilation of the more common varieties.*

STONE CHARACTERISTICS

- Limestone:** Often has grain formation changes, iron spots, pit holes, and streaks or spots of calcite. May contain fossils or shell formations.
- Onyx:** Can be translucent. Vulnerable to chemical and mechanical attack. Used for decorative applications.
- Travertine:** Has pronounced anisotropic properties. Generally contains holes.
- Sandstone:** Resistant to chemical and salt deterioration. Used as an abrasive non-slip surface. Generally more porous than other dimension stone.
- Marble:** Highly prized for aesthetic values. Relatively uniform crystal matrix: some marbles have large crystals while some are very fine (< .5mm).
- Quartzite:** Breaks across grain, not around grain. Very durable material that withstands weathering well.
- Serpentine:** Wide range in quality and performance due to diversity in mineral content. Hardness varies from 2.5 to 5 on the Mohs scale.
- Slate:** Exceptionally pronounced anisotropic properties. Has a cleavage quality that allows it to be split into thin sheets.
- Soapstone:** Commonly has a "soapy" or slippery and soft feel. High chemical resistance. Often treated with mineral oil to enhance the color and veining. High heat resistance and heat retention properties.
- Basalt:** Some varieties are good for wet environment applications. Highly resistant to abrasives.
- Granite:** High density. Highly resistant to abrasion, chemicals, and weathering. Can be nearly isotropic to mildly anisotropic.



This handout was developed as a reference tool for the 'Natural Stone 101' presentation as developed by the Natural Stone Institute Education Committee. www.naturalstoneinstitute.org/ceu

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