




Lifecycle Benefits of Nature Stone vs. Alternative Flooring

Flooring	Thickness	"R" Value	Resistance to Moisture	PROS	CONS
	1/2 inch	4.02 - 4.45	Excellent <i>Nature Stone flooring contains an anti-microbial agent that resists mold and mildew. Moisture, water, even flooding, will not damage a Nature Stone floor.</i>	<ul style="list-style-type: none"> - Corrects uneven and cracked concrete - Low maintenance, easy to clean - Stain and moisture resistant - Natural and attractive - Withstands heavy foot and vehicular traffic - Unparalleled warranty 	<ul style="list-style-type: none"> - Should not be installed over wooden substrate or asphalt - Will not re-direct water
Urethane Coatings	10-24 mils	1.35 - 2.10	Fair	<ul style="list-style-type: none"> - Easy application - Repairs cracks and chips - Low initial cost - Temporary fix to cover ugly concrete 	<ul style="list-style-type: none"> - Replaced more often - Deteriorates due to salt, heat from tires and hydrostatic pressure - Limited or no warranty
Carpet	Varies	0.70 - 2.10	Poor	<ul style="list-style-type: none"> - Low initial cost - Little ongoing maintenance - Covers ugly concrete 	<ul style="list-style-type: none"> - Replaced more often - Can breed mold/mildew - Stains easily - Limited or no warranty
Linoleum	1/8 inch	0.20 - 0.40	Poor	<ul style="list-style-type: none"> - Low initial cost - Easy to clean - Covers ugly concrete 	<ul style="list-style-type: none"> - Replaced more often - Traps moisture and can breed mold/mildew - Slippery when wet - Limited or no warranty
VCT (Vinyl)	1/8 inch	0.20	Poor	<ul style="list-style-type: none"> - Low initial cost - Easy to clean 	<ul style="list-style-type: none"> - Replaced more often - Pops or bubbles due to hydrostatic pressure - Slippery when wet - Limited or no warranty
Ceramic Tiles	3/8 inch	0.25	Good	<ul style="list-style-type: none"> - Easy to clean - Looks beautiful 	<ul style="list-style-type: none"> - Very fragile - Traps moisture and can breed mold/mildew - Long-term grout maintenance - Limited or no warranty
Wood	1/8 inch - 3/4 inch	0.20 - 0.75	Poor	<ul style="list-style-type: none"> - Easy to clean - Looks beautiful - Natural and attractive 	<ul style="list-style-type: none"> - Traps moisture and can breed mold/mildew - Can warp with water damage - Can be scratched - Develops seams/starts to squeak - Limited or no warranty

Source: National Terrazo Association and other independent sources



(ASTM) American Society for Testing Materials

ASTM Test Number	Purpose of Test	Nature Stone Flooring Results
D 695	Compressive Strength	8,000 to 25,000 psi
D 790	Flexural Strength	4,000 psi
D 638	Tensile Strength Tensile Elongation	7,000 psi @ 25 degrees 30% at 25 degrees
D 1002	Adhesion, Tensile Shear	2,800 at 25 degrees Celsius
D E648	Critical Radiant Flex	0.45 watts/cm2 or greater
D 1894	Coefficient of Friction	0.940 static 0.869 kinetic

*Nature Stone will outlast and outperform alternative flooring systems in terms of the above-listed American Society for Testing Materials (ASTM) *Third Party Independent Tested

Flexural Testing Per Modified ASTM D790

Sample ID:	3/8" lg. dia.
Span:	5"
Speed:	0.05 ipm
Nominal width:	2"
Nominal Thickness:	0.375"
Flexural Stress at Yield	
Avg: 413.7	Std. dev: 45
Flexural Strain at Yield	
Avg: 1.3	Std. dev: 0.3
Flexural Modulus	
Avg: 92410	Std.dev: 14000

ASTM Fluid Immersion Testing Results

Liquid	Effect on NATURE STONE
10W-30 Motor Oil	No Change
Ammonia	No Change
Battery Acid	No Change
Bleach	Minor reduction of gloss
Ethylene Glycol	No change
Halite	No change
Sodium Chloride	No change
Tri Sodium Phosphate	No change

NATURE STONE was immersed in the above fluids for 500 hours at 23 degrees Centigrade (74 degrees Fahrenheit) ASTM Test D471.

Nature Stone flooring Data Summary

Acoustical Value/Fire Performance		
Characteristics	Test Method	Result
Slip Resistant	ASTM D1894	Compliant
Fire Performance	ASTM E648	Compliant
Acoustical Performance	ASTM C423	Effective
Thermal Comfort	ASTM C518	Significant
Impact Resistance	ASTM D5402	Exceeds

Nature Stone flooring vs. Garage Concrete (4" thick)

Test	NATURE STONE	Concrete
PSI	8,000+	2,400 - 4,000
Salt Resistant	Yes	No
Stain Resistant	Yes	No
Slip Resistant	Yes	No



Gardner Impact per Modified ASTM D5402

Sample ID:	3/8" lg. dia.	Sample ID:	3/8" sm. dia.
Striker Diameter:	5/8"	Striker Diameter:	5/8"
Sample Prep:	Specimens set on 2" thick concrete	Sample Prep:	Specimens set on 2" thick concrete
Impact Energy (in. lbs.)	Result	Impact Energy (in.lbs.)	Nature Stone Flooring Result
20	no break, slight chip	80	no break, slight chip
30	no break, slight chip	100	no break, slight chip
40	no break, did crack back	100	no break, slight chip
40	shattered specimen	120	shattered specimen
70	shattered specimen	120	shattered specimen
80	shattered specimen		
80	no break, slight chip		
90	shattered specimen		
100	shattered specimen		

All test results are on file at NATURE STONE headquarters. Testing was completed by independent testing laboratories.

"R" Value Comparison

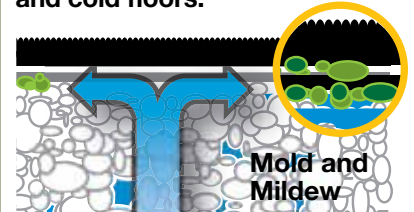
Flooring Type	"R" Value
Nature Stone	4.02 - 4.45
Urethane Coatings	1.35 - 2.10
Carpet	0.70 - 2.10
Linoleum	0.20 - 0.40
VCT (Vinyl)	0.20
Ceramic Tiles	0.25
Wood	0.20 - 0.75

A NATURE STONE floor has greater insulation "R" Value than carpet, tile, linoleum, wood or any coating or paint, which helps keep your basement warmer in winter – a lot warmer.

Basement concrete floors are generally between 52 – 58 degrees. The warm air in your basement is absorbed into the concrete causing condensation on the concrete floor surface. Oftentimes, you can't see the condensation but you know it as humidity or dampness. Placing carpeting, tile, linoleum or wood over the concrete traps in moisture which causes mold and mildew to grow and keeps the floor covering material much cooler because of the lack of warm airflow.

Because NATURE STONE flooring is designed to be a porous material, your concrete is able to breathe naturally allowing warm air to circulate within the NATURE STONE floor. This makes for a warmer, more comfortable floor and a difference you'll notice immediately. Also, the specially formulated epoxy within the NATURE STONE flooring has high thermal conductivity properties which causes it to retain the warmth for the heated basement air. No other concrete flooring product can make that claim or live up to the benefits of an authentic NATURE STONE floor.

Cold concrete and trapped moist air cause mold, mildew and cold floors.




Call 800-358-0583
for an in-home estimate or visit
NatureStone.com