



TEST REPORT

CeramiKrete™ CeramiLok

Test Report

CeramiKrete™ CeramiLok specializes in specialty colloidal silicas for use as concrete densifiers. The purpose of this work was to evaluate the performance of the CeramiLok densifier in comparison to a leading commercial product. CeramiKrete™ CeramiLok is a new innovation by CeramiKrete™ and is a 6 nanometer lithium stabilized colloidal silica. The surface area is 600 m²/g with a 9.3 pH and is the highest surface area lithium stabilized colloidal silica on the market.

Abrasion Resistance Testing

Abrasion resistance testing was performed by Element Materials Technology, St. Paul, MN, following ASTM C1830, “Standard Guide for Abrasion Resistance of Mortar Surfaces Using a Rotary Platform Abraser.”

Concrete specimens were prepared using the MnDOT 3F52 mix design. The specimens were 4” diameter and 0.25” thick, and were cured 28 days before use in this work. The samples were treated as follows: The specimen surface was saturated with the densifier and the surface was kept wet for 30 minutes by applying additional densifier as needed. After the saturation was complete, the specimens were allowed to dry 1 day, and then the abrasion resistance was measured at 1 day and 7 days aging.

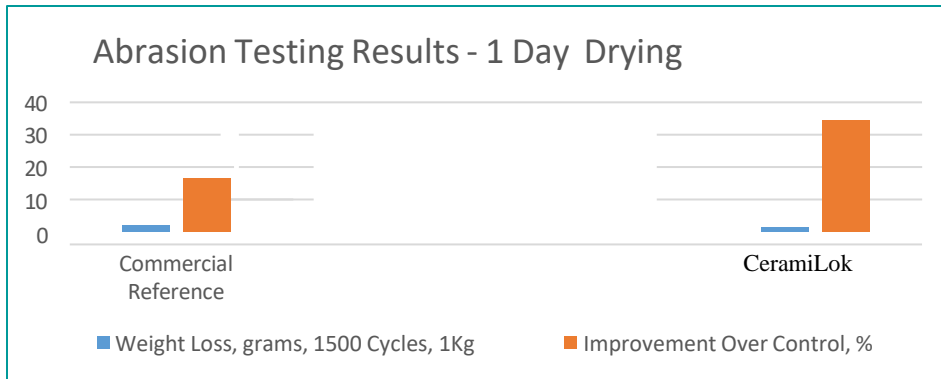
Sample Preparation

1. Control – No treatment applied.
2. Commercial Reference – Applied as received according to the manufacturer’s recommendation.
- 3 CeramiKrete™ CeramiLok – Used at 3.8% SiO₂.

CeramiKrete™ Densifiers Abrasion Resistance Testing

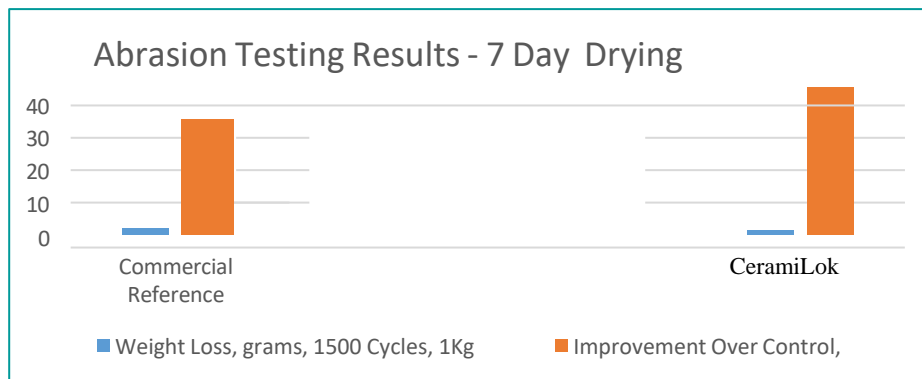
Results 1 Day Drying

Sample	Sample Age, Days	Weight Loss, grams, 1500 Cycles, 1Kg Load	Improvement Over Control, %
Control	N/A	2.35	---
Commercial Reference	1	1.965	16.4
CeramiKrete™ CeramiLok	1	1.54	34.5



Results 7 Day Drying

Sample	Sample Age, Days	Weight Loss, grams, 1500 Cycles, 1Kg Load	Improvement Over Control, %
Control	N/A	2.35	---
Commercial Reference	7	1.54	34.5
CeramiKrete™ CeramiLok	7	1.36	42.1



The results show the following:

1. Commercial reference was low in performance after 1 day, but at 7 days the abrasion resistance was close to that claimed by the manufacturer.
2. The CeramiKrete™ CeramiLok densifier showed excellent performance after 1 day.
3. The CeramiKrete™ CeramiLok showed the best performance versus the competitive brand.

FOR ADDITIONAL INFORMATION OR
TO PLACE AN ORDER
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