



**CERTIFICATE OF ANALYSIS**

**FOSSIL SHELL FLOUR®  
(Diatomaceous earth)**

**Typical Physical and Optical Properties**

Median Particle Size (microns)	10
325 Mesh Screen Residue %	2.0
Refractive Index	1.43
Oil Absorption, Spatula Rub-Out Method, %	120
Brightness, Green Filter	85
Loose Weight, Lbs./cu.ft. (gm/liter)	12.0/192
Specific Gravity	2.2
Surface Area, m <sup>2</sup> /gm	35.7
Median Pore Diameter, microns	1.2

**Typical Chemical Analysis (ppm) parts per million**

Test: ICP-MS 29 Element Screen	<u>Aluminum</u>	<u>Arsenic</u>	<u>Boron</u>	<u>Barium</u>	<u>Mercury</u>
	3085.62	4.43	3.01	48.88	.0317
	<u>Beryllium</u>	<u>Calcium</u>	<u>Cadmium</u>	<u>Cobalt</u>	<u>Chromium</u>
	0.35	2948.67	0.485	0.32	1.49
	<u>Copper</u>	<u>Iron</u>	<u>Potassium</u>	<u>Lithium</u>	<u>Magnesium</u>
	9.78	1594.87	1451.21	.068	740.18
	<u>Manganese</u>	<u>Molybdenum</u>	<u>Sodium</u>	<u>Nickel</u>	<u>Phosphorus</u>
	4.45	0.05	907.75	2.26	14.06
	<u>Lead</u>	<u>Antimony</u>	<u>Selenium</u>	<u>Silica</u>	<u>Tin</u>
	2.36	<0.01	0.19	324.07	0.01
	<u>Strontium</u>	<u>Thallium</u>	<u>Vanadium</u>	<u>Zinc</u>	<u>Silver</u>
	25.45	0.02	4.86	26.2	0.12

**Crystalline Silica Content < 1% (less than half of one percent)** (total crystalline silica, X-ray Diffraction (XRD). PH 8.0 **SIO2 content: 92%**

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The samples were digested in trace mineral grade nitric acid under heat. The digests were then diluted with ultra-pure water to a final nitric acid content of 5% which provided a matrix match for the analytical standards. The prepared samples were analyzed by ICP-MS and accessed against concentration curves of known standards.

The physical or chemical properties of Perma-Guard products represent typical, average values obtained in accordance with the generally accepted test methods and are subject to normal manufacturing variations. They are supplied as a technical service and are subject to change without notice. Technical data shown above are considered accurate and reliable. However, no guarantee is given or intended. For important health and safety information please refer to the MSDS.

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**Lot Number:** 615FRP14190 **Manufacture Date:** July 9, 2014 **Expiration Date:** None

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