Zeeospheres™
ceramic microspheres

Mohs Hardness

Introduction

One of the benefits of Zeeospheres™ Ceramic Microspheres is their ability to increase hardness and abrasion resistance of coatings. This is partly a result of their spherical shape and partly a result of their own hardness.

There are many different ways to measure and express hardness. The system commonly used to measure the hardness of Zeeospheres™ Ceramic Microspheres and most ground minerals is the Mohs scale. It appears that this system is not universally understood, however, and we have had several requests for more information on the Mohs hardness scale. Therefore, below is some background and detail on Mohs hardness.

The Mohs scale for hardness was developed in 1822 by a German mineralogist named Fredrich Mohs. It involved arranging common minerals in a list so that when one material was scraped against another, the higher numbered material would scratch the lower numbered material – indicating that it was harder. Mohs selected a value of 1 for talc and 10 for diamonds, requiring all other minerals to be rated somewhere in between.

Mohs Hardness Rankings

Mohs Hardness Value	Typical Materials
1	Talc
2	Kaolin Mica = 2.0-2.5 Human Fingernail = 2.5
3	Barite, calcium carbonate, copper coin
4	Granite, Fluorite Iron = 4.5
5	Apatite Wollastonite = 5.0 - 5.5
6	Feldspar Titanium Dioxide = 6.0 - 6.5
7	Silica Zeeospheres™ Ceramic Microspheres
8	Topaz
9	Sapphire
10	Diamond

As shown above, Zeeospheres ceramic microspheres have the same Mohs 7 hardness as silica.

Product Safety and Handling

Please read and follow the precautions and directions for use on the product label and on Material Safety Data Sheets available from Zeeospheres Ceramics, LLC, (985) 532-2541, www.zeeospheres.com.

zeeospheres CERAMICS, LLC

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