

P.V.P. Industries Inc.

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OMRI Request for detailed description on how perlite is acquired and expanded by P.V.P. Industries Inc.

P.V.P. Industries Inc. acquires our perlite from the mine in Lake View, Oregon where it is, mined, dried, screened and sized. Details- <http://www.cornerstonemineral.com/minproc.html>

“Mining is conducted at the Tucker Hill pit, 35 miles north of Lakeview, Oregon. Topsoil and organic matter are stripped from the surface and stockpiled for post mining reclamation. The ore is then drilled and blasted. All blast areas are mapped and drill holes sampled for expandability tests. In order to assure product quality, ore mining dig plans are designed on information gathered from this geological mapping and associated sample tests.

The ore is crushed to minus 1 ½" at the quarry site and stockpiled. The crushed perlite ore is loaded by Cornerstone personnel into over-the-road trucks operated by a local contractor and delivered to the processing facility.

The crushed perlite is reduced in size and sent through a rotary kiln drier. The ore is then further reduced using a VSI crusher and then processed through four new state-of-the-art separating screens. The various grades of processed perlite are stored in silos with a total capacity of 1,300 tons. The perlite ore is then blended to meet the customer's specifications and loaded onto trucks or rail cars. (see spec sheet page for information).

Processed perlite can be delivered from the Lakeview processing facility via rail or truck.”

Brought into our facility by the rail and truckload/ton and heated to displace the trapped water within the particles and packaged for horticultural use. P.V.P. Industries Inc. **DOES NOT** add any emulsifiers, wetting agents, fertilizers or the like. The only change in the chemical structure of the raw ore to expanded perlite is H2O being displaced into Oxygen.

Below you will see an excerpt from the Perlite Institute describing the expansion process-

“This expansion is due to the presence of two to six percent combined water in the crude perlite rock. When quickly heated to above 1600°F (871°C), the crude rock pops in a manner similar to popcorn as the combined water vaporizes and creates countless tiny bubbles which account for the amazing light weight and other exceptional physical properties of expanded perlite.

The expansion process also creates one of perlite's most distinguishing characteristics: its white color. While the crude rock may range from transparent light gray to glossy black, the color of expanded perlite ranges from snowy white to grayish white.

Expanded perlite can be manufactured to weigh as little as 2 pounds per cubic foot (32 kg/m3) making it adaptable for numerous applications.”

“Since perlite is a form of natural glass, it is classified as chemically inert and has a pH of approximately 7.” http://www.perlite.org/product_guides/1%20Basic%20Facts%20about%20Perlite.pdf

Any further processing information is proprietary and will not be disclosed.

May 24, 2019

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