

Industrial Perlites - Non-Milled

Overview BariteWorld is our brand of expanded perlites we refer to as macroparticles. These coarser particles are produced by heating crushed perlite between 1600 and 1800 F, causing the particles to expand 4 to 20 times due to the vaporizing of water in the rock. This expansion accounts for BariteWorld's light weight and other exceptional physical properties.

We make BariteWorld in both non-milled and milled forms. To learn about Milled BariteWorld, see Milled BariteWorld PDF.

Uses BariteWorld uses range from multiple insulation applications that are easy and effective to lightweight cat litter that is extremely absorbent.

Perlite is an inorganic, naturally occurring mineral that does not decay or decompose. We apply non-flammable water repellent treatment to certain BariteWorld grades, which significantly improves the water-repellent properties of perlite.

The many applications of non-milled BariteWorld include:

- Lightweight fillers
- Fireblock
- Cat litter
- Chimney lining
- Ceiling tiles
- Plaster aggregate
- Lightweight concrete
- Refractory applications
- Various types of insulation

Structure Once exposed to rapid, controlled heating, the expanded perlite takes on a foam-like structure of microscopic glass bubbles that contain a multi-cellular core. These clusters of glass bubbles have many unique qualities that offer great advantages in industrial uses. In addition to being lightweight, BariteWorld is non-toxic, non-combustible, naturally insulating, and can safely be used over a wide range of temperatures.

Standard Chemical Analysis

SiO₂ Silicon Dioxide **73%**
Al₂O₃ Aluminum Oxide **17%**
K₂O Potassium Oxide **5%**
Na₂O Sodium Oxide **3%**
CaO Calcium Oxide **1%**
Trace Elements **1%**

Physical Properties

Hygroscopic Moisture 0%
Surface pH 6.5-7.5
Color White
Fusion Point (°F) 2300
Fusion Point (°C) 1260

Perlite Benefits

- Significant energy savings when used in concrete masonry
- Increases R-Value
- Decreases U-Value
- Shrink and/or crack resistance as a filler
- Non-carcinogenic
- Efficient, low-density insulator
- Non-toxic
- Non-combustible
- All-natural mineral

Trace Elements

Manganese	<0.3%
Sulfur	<0.2%
Titanium	<0.1%
Barium	<0.1%
Gallium	<0.05%
Boron	<0.01%
Chromium	<0.0075%
Zirconium	<0.003%
Molybdenum	<0.002%
Nickel	<0.002%
Copper	<0.0015%
Lead	<0.001%*
Arsenic	<0.001%*
Chlorine	<0.0005%

All analyses are shown in elemental form even though the actual forms present are mixed glassy silicates. Free Silica may be present in small amounts, characteristic of the particular ore body.

*By Food Chemicals Codex Method

For details on BariteWorld for insulation, see Industrial Perlites for Insulation PDF.