

Gondwana Zeolite

Comparison of Zeolites from Geologically Old Deposits and Geologically Young Deposits

Age is important when it comes to the purity and stability of a particular zeolite. Due to its geological age, Australia has the oldest known zeolite deposits in the world. Stable zeolite improves soil structure whereas unstable zeolite compresses and compacts into the soil.

Gondwana Zeolite is mined from a 305 million year old deposit, it is geologically old, hard and stable. Overseas commercial deposits are between 2 million and 10 million years old, they are geologically young, soft and unstable.

Formation of Old Australian Zeolite Deposits

About 350 million years ago there was an extensive range of active volcanos where the present day Warrumbungles now stand. These volcanoes poured out a continuous stream of volcanic ash into the atmosphere. Over tens of millions of years the prevailing winds carried the ash towards a shallow inland lake approximately 120 sq km in size. Much of the volcanic ash fell into this lake which was the perfect depth to form solid zeolite.

By 305 million years ago (Carboniferous Period of the Palaeozoic Era) the lake had become solid, hard compacted zeolite. At this time Australia was still part of Gondwanaland and partly covered by heavy glaciations over long periods of time. The ice covered the zeolite deposit and contributed to its present day hardness and stability. Even more compression was caused by a heavy lava flow which solidified on top of it.

When the Great Dividing Range was formed about 5 million years ago, massive earthquakes tilted the enormous zeolite deposit on its side and dropped it into a huge hole. Part of the deposit was then covered by 6 m of rock which compacted the zeolite even further and also, very importantly, kept it free of contamination. This is the zeolite supplied by Gondwana Zeolite, the hardest, purest and most stable zeolite on earth.

Formation of Young Zeolite Deposits

Zeolite in young deposits is described as sedimentary rock, it is formed from clays, volcanic ash and other minerals. These sedimentary deposits of zeolite are between 2 million and 10 million years old and have not had time to compact; instead the consistency of young zeolite is a clumping powder which crushes easily. Geologically young deposits are found either on top of the soil or in hills, their colours vary from white to tones of brown and green depending on which other minerals are contained in their composition.

Comparison between Old and Young Zeolites

Gondwana Zeolite's Australian zeolite is geologically old, hard and stable, it has no dissolved salts and its analyses are consistent. It is durable and remains in the soil permanently.

American, Asian and European zeolites are geologically young, soft and unstable, they contain dissolved salts and their analyses are inconsistent. They crush, compact and break down in the soil.