

ROCKS

BASALT

ORIGIN

The basalt of the Azores was produced by effusive volcanic eruptions from Hawaiian and/or Strombolian types of volcanoes present on the islands. The basalt comes in many different forms, each telling a unique story of its volcanic origin, including the magma's effusion rate and flow characteristics.

CHARACTERISTICS

This type of rock is generally compact, rich in ferromagnesian minerals, and comes in a variety of different shades of gray. Several minerals can be macroscopically identified in its porous, vesicular texture, including olivine phenocrysts, pyroxenes and plagioclases, among many other aphanitic types.

APPLICATIONS

In relation to the region's building and construction industry, Basalt is mainly used for the following purposes:

- Formation of construction aggregates by crushing or grinding
- Concretes, bitumens and asphalts
- Coastal and seaport construction
- Architecture and urban furniture
- Ornamental or decorative rock
- Advanced composite materials

LAPILLI

ORIGIN

Lapilli, known regionally as Bagacina, is a term used to describe pyroclastic rocks that are composed solely or primarily of volcanic materials projected from particularly explosive eruptions of the Hawaiian and/or Strombolian type. Lapilli rocks are spheroid-, teardrop-, dumbbell- or button-shaped droplets of molten or semi-molten lava that fall to earth while still at least partially molten. These granules are not accretionary, but instead the direct result of liquid rock cooling as it travels through the air, usually from the cinder cones at the center of the eruption.

CHARACTERISTICS

This type of rock is generally characterized by a granular appearance and can range in color from reddish to black, with a porous and vacuolar texture, and dimensions ranging from fine to coarse ash to lapilli and blocks. There is in fact a wide variety of minerals, from huge blocks to very fine ash, through intermediate terms as bagacina, gravel, lapilli and coarse sand exhibiting vesicular and spongy structure. In general, the effusive rocks show aphanitic or microcrystalline texture, and the pyroclastic rocks show porous to very porous, vesicular to very vesicular, and rarely amygdalar and breccoid texture.

APPLICATIONS

Its main uses in the region's building & construction industry include:

- Formation of construction aggregates by crushing or grinding
- Building blocks
- Fill
- Rural and forest paths
- Artificial soils



COFINANCIAMENTO:



PROMOTOR:



PARCEIROS:

