SB Minetact

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SBM Ball Clay

We are considered as a reputed firm, we are engaged in manufacturing, trading, supplyi ng and exporting a wide range of Ball Clay/China Clay in Mundra, Gujarat, India. Our offered p roduct is processed using quality-approved raw ingredients, which is source from trustworthy and authorized vendors of the market. These are provided by us at an economical rates.

Ball clay is an extremely rare mineral found in very few places around the world. We deal in best quality ball clays or plastic clays, which are fine grained, extremely plastic sedimentary clays. These are employed primarily in the production of ceramic white ware and are treasured for their key properties of plasticity, unfired power and their light fired color. The clays are employed in the ceramic bodies because of their plastic nature joined with high firing temperature.

Ball Clays come with high dry shrinkage rendered with high green strength as well as slow drying. The clays are kaolinite rich secondary clay that are accessible in dark brown to black colour due to moderately high organic impurity content. Ball Clay is a variety of Kaolinite, like china-clay. It differs from china-clay in having high plasticity and less refractoriness.

Some also have fluid properties that are valuable in the casting of large ceramic pieces such as toilet bowls. ball clays are used in many different industries, but in particular form a vital component in ceramic manufacturing. Ceramic tableware utilizes ball clay to provide high plasticity and a good white-fired color, combined with kaolin, feldspar and quartz. An ability to resist the effects of extremely high temperatures makes ball clay ideal for use in refractory products such as kiln insulation and furniture. Building materials such as bricks, clay pipes and roof tiles all contain ball clay.

Ball clay acts as a binding agent and contributes to plasticity, workability and strength in a pre-fired ceramic body. Some are highly valued for their fluid and casting properties, particularly in the manufacture of sanitaryware.

Ball clays exhibit highly variable compositions and consist of a mixture, primarily of kaolinite, mica and quartz, with each contributing different properties to the clay. The crystallinity of the key component, kaolinite, has a marked influence on ceramic performance.

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Ball clay commonly consists of 20-80% kaolinite, 10-25% mica & 6-65% quartz. Ball clay and china clay differ only in the degree of plasticity. Ball clay is a highly plastic variety of kaolin having high binding power, tensile strength and shrinkage. It is utilised generally after mixing with non-plastic clay to impart the desired plasticity in pottery, porcelain and refractory materials. It also helps in the preparation of glaze, enamels and for imparting a dense vitrified body.

Uses of SBM BALL Clay :

Ball clays are used in many different industries, but in particular form a vital component in ceramic manufacturing. Ceramic tableware utilizes Ball clay to provide high plasticity and a good white-fired color, combined with kaolin, feldspar and quartz. An ability to resist the effects of extremely high temperatures makes Ball clay ideal for use in refractory products such as kiln insulation and furniture. Building materials such as bricks, clay pipes and roof tiles all contain Ball clay.

Ceramics:

Ball clays are used in many different industries, but in particular form a vital component in ceramic manufacturing. Kaolin ('china clay') produces a very white color when it is fired, but used alone it is brittle and weak and must be mixed with ball clay to produce a workable, malleable raw material. As a result of their sedimentary origin, raw Ball clays have a wide range of colors. However, many of them are valued by the ceramics industry for their white-firing properties, which are determined by the levels of iron and other coloring/fluxing oxides within the clay.

Sanitary-ware:

A 'ceramic body' for sanitaryware typically includes 30% Ball clay to provide plasticity and workability, 20% kaolin, 30% feldspar and 20% quartz/silica.

Tableware:

Ceramic tableware utilizes Ball clay to provide high plasticity and a good white-fired color, combined with kaolin, feldspar and quartz.

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Wall and floor tiles:

Combined with talc, feldspar, quartz/silica and kaolin, Ball clays are utilized for their plasticity and bonding properties.

Glazes and engobes:

Ball clays are also used in the production of coatings for ceramic products to ensure the perfect finish.

Refractory clays:

An ability to resist the effects of extremely high temperatures makes ball clay ideal for use in refractory products such as kiln insulation and furniture.

Construction ceramics:

Building materials such as bricks, clay pipes and roof tiles all contain ball clay.

Electrical porcelain insulators:

You will find ball clays in the electrical porcelain components that provide insulation from high voltage currents.

Non-ceramic applications:

These include the construction industry; horticulture, agriculture and amenity industries; use as fillers and extenders in polymers, adhesives, plastics, sealants, fertilizers and insecticides.

CHEMICAL PROPERTIES

Mineral	Percentage
SiO2	36% to 42%
Al2O3	36% to 41 %
Fe2O3	1.5% to 2.1%
TiO2	2.7% to 3.1%
CaO	0.4% to 0.8%
Na2O	0.3% to 0.6%
PCE	32
Loss of Ignition	16% to 18%