



JAY GANESH MINERALS

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THE HOUSE OF

COMPLETE

**MINERAL
SOLUTIONS**

www.jayganeshminerals.com





ABOUT US

Jay Ganesh Minerals, established in 2005, stands as a testament to excellence in the clay mining sector. Operating from five strategic mining sites, we specialize in a diverse array of high-quality clay products including Semi-Plastic Clay, Ball Clay, White Clay, WBC Clay, China Clay, and Processed Clay. Our clays are essential for various industries, contributing significantly to the ceramics, paper, rubber, and paint sectors due to their superior quality and unique properties.

Our commitment to sustainable mining and environmental stewardship is integral to our operations, ensuring that we not only meet but exceed regulatory standards. With advanced processing facilities and rigorous quality control measures, we guarantee the highest caliber of clay products. At Jay Ganesh Minerals, our focus on innovation, customer satisfaction, and environmental responsibility drives our success, making us a preferred partner in the industry. We continue to lead with our dedication to delivering exceptional value and service to our clients globally.

 **100+**
CLIENTS

 **25**
TEAM

 **5**
MINES





BALL CLAY

Ball clays (also referred to as plastic clays) are fine-grained, highly plastic sedimentary clays, derived from kaolinite typically moved from decomposed feldspar present in igneous source rocks, such as granite. High quality ball clays are relatively scarce, and valued for their key properties of plasticity, rheology, unfired strength and light fired colour.

As well as kaolinite, ball clays typically contain other 'contaminants' that provide its unique characteristics. Layered mineral contaminants provide strength, whereas carbon contaminants can provide favorable rheological properties, well suited for sanitaryware production.



CHEMICAL PROPERTIES

NAME	OM-1	BK-1	E-1	SN-1	UKRN-2	J-1
SiO ₂ (%)	50 TO 55	53 TO 55	55 TO 57	48.95	52.38	52.79
Al ₂ O ₃ (%)	30 TO 33	28 TO 33	28 TO 33	32.81	31.32	32.0
Fe ₂ O ₃ (%)	1 TO 1.30	1 TO 1.20	1 TO 1.40	1.47	1.02	1.01
TiO ₂ (%)	1 TO 1.40	1 TO 1.30	1 TO 1.20	1.78	0.71	1.00
MgO (%)	0.25 TO 0.35	0.25 TO 0.35	0.25 TO 0.35	0.42	0.31	0.48
CaO (%)	0.45 TO 0.75	0.45 TO 0.90	0.45 TO 0.60	0.81	0.89	1.06
K ₂ O	0.50 TO 1.20	0.50 TO 1.50	0.50 TO 1.30	1.03	1.16	1.18
L.O.I	9.50 TO 11.00	9.50 TO 10.00	8.50 TO 11.00	12.31	11.65	10.12

PHYSICAL PROPERTIES

NAME	OM-1	BK-1	E-1	SN-1	UKRN-2	J-1
Visual Appearance	White Lumps	Light Grey Lumps	White Lumps	Cream Lumps	Chips	White Lumps
Particle Size (D50) μ	4 TO 5	6 TO 5	4 TO 5	3 TO 4	3 TO 4	3 TO 4
Water Of Plasticity (%)	33 TO 36	31 TO 33	34 TO 37	41.00	45.20	35
Green M.O.R. (Kg/Cm ²)	8 TO 12	7 TO 12	8 TO 12	8.16	10.15	12.15
Dry M.O.R. (Kg/Cm ²)	25 TO 35	30 TO 40	25 TO 35	30.41	42.25	35.45
Fired M.O.R. (Kg/Cm ²)	225 TO 310	250 TO 330	300 TO 425	246.34	375.01	198.74
Fired Shrinkage(%)	10 TO 11	6 TO 8	5 TO 7	15.21	10.51	8.5
Fired Colour (100%)	L 80 TO 83 A 1.1 TO 1.5 B 10 TO 13	L 83 TO 85 A 1.1 TO 1.5 B 9 TO 11	L 82 TO 85 A 1.1 TO 1.5 B 10 TO 13	L 66.18 A 2.51 B 21.63	L 80.93 A 0.18 B 9.89	L 80.92 A 1.10 B 12.15

BALL CLAY

KEY CHARACTERISTICS

- Rheological stability
- Unfired strength

APPLICATION

- Ceramic Products, Refractories, Paint, Paper, Glass, Cement, Rubber, Foundry, Plastics Industries etc.





KAOLIN CLAY

Kaolin clay, also known as China clay or white clay, is a naturally occurring mineral that has been used for centuries for various purposes. It is named after the Kaoling hill in China, where it was first discovered. This fine, soft powder is composed mainly of the mineral kaolinite and is known for its versatile applications.

One of the most common uses of kaolin clay is in the cosmetic and skincare industry. It is prized for its gentle exfoliating and cleansing properties. Kaolin clay is often used in facial masks, cleansers, and scrubs to help remove impurities, excess oil, and dead skin cells from the skin's surface. Its gentle nature makes it suitable for all skin types, including sensitive skin, as it does not strip the skin of its natural oils.



CHEMICAL PROPERTIES

COMPUND	UNWASHED	WASHED
SiO ₂ (%)	48 TO 55	45 TO 52
Al ₂ O ₃ (%)	30 TO 35	30 TO 39
Fe ₂ O ₃ (%)	1 TO 1.10	1.10 TO 0.30
TiO ₂ (%)	1 TO 1.10	1.10 TO 0.30
MgO (%)	0.25 TO 0.35	0.25 TO 0.35
CaO (%)	0.45 TO 0.75	0.45 TO 0.70
K ₂ O (%)	0.50 TO 1.20	0.08 TO 0.10
L.O.I (%)	9.50 TO 11.00	11.00 TO 14.00

PHYSICAL PROPERTIES

NAME	UNWASHED	WASHED
Visual Appearance	White Lumps	White Lumps
Particle Size (D50) M	2 TO 4	2 TO 3
Water Of Plasticity (%)	34 TO 38	35 TO 42
Green M.O.R. (Kg/Cm ²)	8 TO 12	N.A.
Dry M.O.R. (Kg/Cm ²)	25 TO 30	N.A.
Fired M.O.R. (Kg/Cm ²)	225 TO 250	N.A.
Fired Shrinkage(%)	10 TO 14	N.A.
Fired Colour (100%)	L 85 TO 88, A 0.8 TO 1.5, B 8 TO 12	L 92 TO 95, A 0.4 TO 0.6 B 5 TO 7

KAOLIN CLAY

KEY CHARACTERISTICS

- Rheological stability
- Unfired strength
- Coat, Filter

APPLICATION

- Ceramic Products, Refractories, Paint, Paper, Glass, Cement, Rubber, Foundry, Plastics Industries etc.





PLASTIC CLAY

Plastic clay, also known as clayey soil, is a type of soil characterized by its high proportion of fine particles, primarily clay minerals. These clay minerals, including kaolinite, montmorillonite, and illite, give plastic clay its unique properties. Plastic clay has a smooth, sticky texture when moist and can be easily molded into various shapes, making it an essential material in pottery and ceramics for thousands of years.

However, plastic clay can also become hard and compact when dry, making it challenging for plant roots to penetrate and affecting soil drainage. Therefore, understanding the properties and characteristics of plastic clay is crucial for a wide range of applications, from agriculture to construction and artistry.



CHEMICAL PROPERTIES

NAME	SN-1	UKRN-2	J-1
SiO ₂ (%)	48.95	52.38	52.79
Al ₂ O ₃ (%)	32.81	31.32	32.0
Fe ₂ O ₃ (%)	1.47	1.02	1.01
TiO ₂ (%)	1.78	0.71	1.00
MgO (%)	0.42	0.31	0.48
CaO (%)	0.81	0.89	1.06
K ₂ O (%)	1.03	1.16	1.18
L.O.I (%)	12.31	11.65	10.12

PHYSICAL PROPERTIES

NAME	SN-1	UKRN-2	J-1
Visual Appearance	Cream Lumps	Chips	White Lumps
Particle Size (D50) μ	3 TO 4	3 TO 4	3 TO 4
Water Of Plasticity (%)	41.00	45.20	35
Green M.O.R. (Kg/Cm ²)	8.16	10.15	12.15
Dry M.O.R. (Kg/Cm ²)	30.41	42.25	35.45
Fired M.O.R. (Kg/Cm ²)	246.34	375.01	198.74
Fired Shrinkage(%)	15.21	10.51	8.5
Fired Colour(100%)	L 66.18 A 2.51 B 21.63	L 80.93 A 0.18 B 9.89	L 80.92 A 1.10 B 12.15

PLASTIC CLAY

KEY CHARACTERISTICS

- Rheological stability
- Unfired strength

APPLICATION

- Ceramic Products, Refractories, Paint, Paper, Glass, Cement, Rubber, Foundry, Plastics Industries etc.





WBC CLAY

WBC Clay, or White Blood Cell Clay, is a term used to describe a unique and innovative material that draws inspiration from the human body's defense mechanism – white blood cells. WBC Clay is engineered with the ability to detect and repair structural damage autonomously, making it an ideal candidate for various applications in construction and engineering.

This cutting-edge material not only promises to enhance the durability of structures but also offers sustainability benefits by reducing the need for frequent repairs and maintenance. WBC Clay represents an exciting advancement in materials science, opening up new possibilities for resilient and long-lasting infrastructure in the future.



CHEMICAL PROPERTIES

NAME	PROPERTY
SiO ₂ (%)	53 TO 58
Al ₂ O ₃ (%)	27 TO 33
Fe ₂ O ₃ (%)	0.5 TO 1.5
TiO ₂ (%)	0.5 TO 1.0
MgO (%)	0.5 TO 0.8
CaO (%)	0.5 TO 0.75%
K ₂ O (%)	0.50 TO 1.0
L.O.I (%)	8 TO 11.00%

PHYSICAL PROPERTIES

NAME	PROPERTY
Particle Size (D50) μ	4 TO 6
Water Of Plasticity (%)	33.35
Green M.O.R. (Kg/Cm ²)	8 TO 12
Dry M.O.R. (Kg/Cm ²)	25 TO 30
Fired M.O.R. (Kg/Cm ²)	150 TO 200
Fired Shrinkage(%)	8 TO 10
Fired Colour(100%)	L 80 TO 85, A 1.0 TO 1.8, B 9.0 TO 11.5

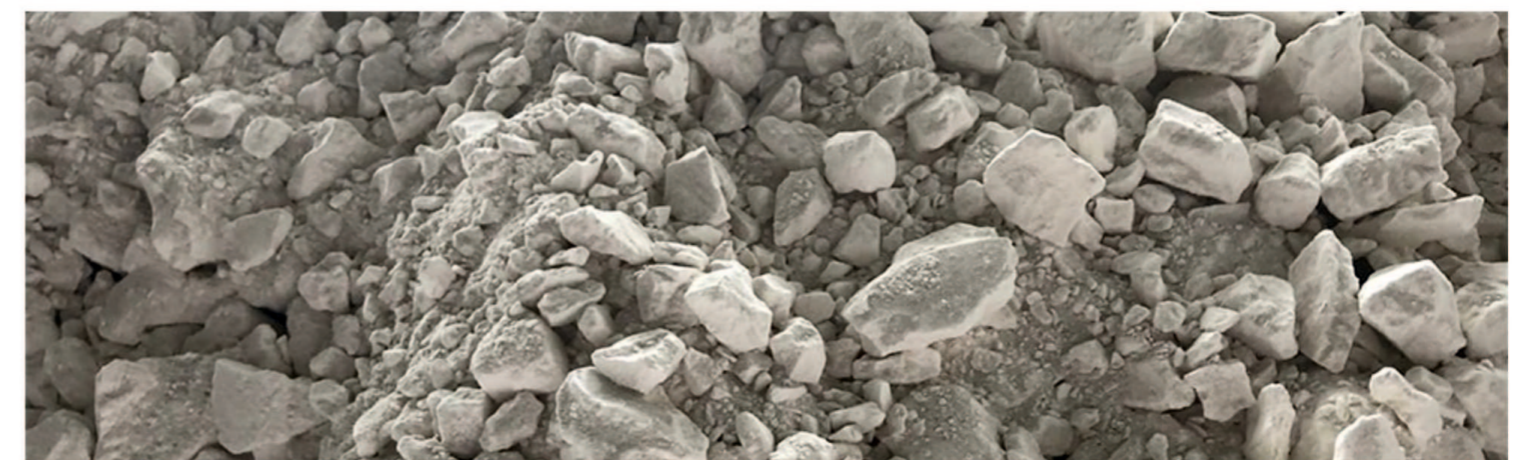
WBC CLAY

KEY CHARACTERISTICS

- Rheological stability
- Unfired strength

APPLICATION

- Ceramic Products, Refractories, Paint, Paper, Glass, Cement, Rubber, Foundry, Plastics Industries etc.





SEMI PLASTIC CLAY

Semi-plastic clay is a type of clay that occupies a middle ground between plastic and non-plastic clay varieties. It is a versatile material with properties that make it highly valuable in various industries, including ceramics, pottery, construction, and even art.

In pottery and ceramics, semi-plastic clay is a preferred choice for artists and potters because of its workability. It allows them to create intricate and detailed pieces, from delicate figurines to functional tableware, with relative ease. This clay type is known for its smooth texture, which aids in achieving a fine finish and intricate designs. Artists often mix semi-plastic clay with other types of clay to achieve the desired balance of plasticity and firmness.



CHEMICAL PROPERTIES

NAME	PROPERTY
SiO ₂ (%)	53 TO 58
Al ₂ O ₃ (%)	27 TO 33
Fe ₂ O ₃ (%)	0.5 TO 1.5
TiO ₂ (%)	0.5 TO 1.0
MgO (%)	0.5 TO 0.8
CaO (%)	0.5 TO 0.75
K ₂ O (%)	0.50 TO 1.0
L.O.I (%)	8 TO 11.00

PHYSICAL PROPERTIES

NAME	PROPERTY
Particle Size (D50) μ	4 TO 6
Water Of Plasticity (%)	33.35
Green M.O.R. (Kg/Cm ²)	8 TO 12
Dry M.O.R. (Kg/Cm ²)	25 TO 30
Fired M.O.R. (Kg/Cm ²)	150 TO 200
Fired Shrinkage(%)	8 TO 10
Fired Colour(100%)	L 80 TO 85, A 1.0 TO 1.8, B 9.0 TO 11.5

SEMI PLASTIC CLAY

KEY CHARACTERISTICS

- Rheological stability
- Unfired strength

APPLICATION

- Ceramic Products, Refractories, Paint, Paper, Glass, Cement, Rubber, Foundry, Plastics Industries etc.





PROCESSED CLAY

Processed clay refers to clay that has undergone various treatments and transformations to make it suitable for a wide range of applications. The process typically involves mining raw clay from natural deposits and then subjecting it to a series of steps to remove impurities and enhance its properties. These steps can include washing, drying, crushing, and grinding the clay to achieve a consistent texture and particle size.

Processed clay finds extensive use in industries like ceramics, construction, agriculture, and manufacturing, where its unique properties, such as plasticity, strength, and heat resistance, make it a valuable raw material for various products and processes.



CHEMICAL PROPERTIES

PARAMETERS	SPECIFICATIONS
SiO ₂ (%)	45-46
Al ₂ O ₃ (%)	37-38
Fe ₂ O ₃ (%)	0.4 Max.
TiO ₂ (%)	0.80 Max.
L.O.I (%)	13.5-14.5



PHYSICAL PROPERTIES

PARAMETERS	SPECIFICATIONS
Appearance/Smoothness	Smooth Powder
Brightness (ISO) (%)	83.0 Min.
Whiteness (AIMIL) (%)	86-87
Moisture @120 deg C for 1hrs (%)	2.00 Max.
Coarse Particle Retained on #500 ASTM (%)	0.3 Max
Coarse Particle Retained on #325 ASTM (%)	0.01 Max.
<2 μm Particle size (%)	90-92
Specific Surface area (BET) (m ² /gm)	10-12
Bulk Density (gm/cc)	0.25 0.35
pH (10% aq. Solution)	7.0-8.5
Caustic Demand (%)	0.05 Max.
Dispersant Demand (%)	0.15 Max.
Oil Absorption Value (gm/100gm)	45-48
Brookfield Viscosity (70% Solid, 100 rpm, spl no.3) (Cps)	350 Max.

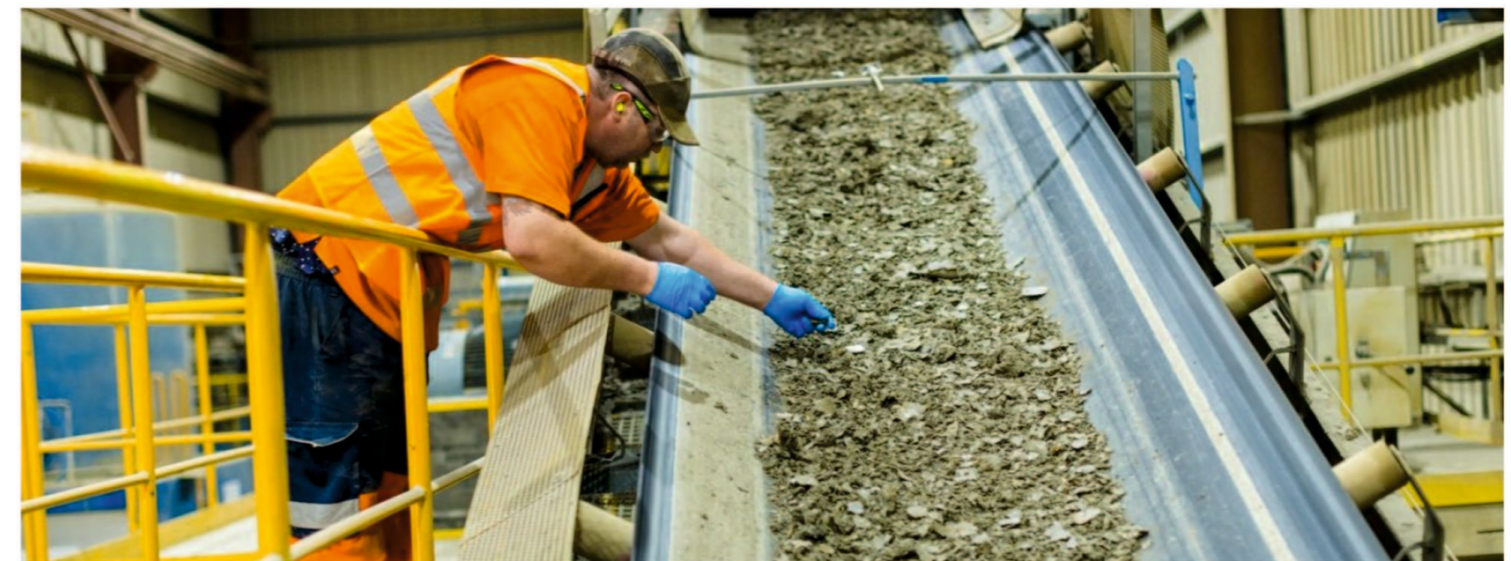
PROCESSED CLAY

KEY CHARACTERISTICS

- Rheological stability
- Coat, Filter

APPLICATION

- Ceramic Products, Refractories, Paint, Paper, Glass, Cement, Rubber, Foundry, Plastics Industries etc.





WHITE CLAY

White clay, also known as kaolin or China clay, is a naturally occurring mineral that holds significant importance in various industries and applications. Its name is derived from the Kao-Ling hills in China, where it was first discovered. White clay is primarily composed of the mineral kaolinite and is renowned for its distinctive white color and fine, soft texture.

In the realm of ceramics and pottery, white clay is a fundamental ingredient for creating porcelain and fine china due to its exceptional plasticity and ability to withstand high firing temperatures. Its pure white appearance provides a pristine canvas for artists and artisans to work with, making it a favored choice for crafting delicate and intricate pieces.



CHEMICAL PROPERTIES

COMPUND	WCLM CLAY	WCHM CLAY
SiO ₂ (%)	53.40	50.13
Al ₂ O ₃ (%)	31.92	33.46
Fe ₂ O ₃ (%)	0.51	0.68
TiO ₂ (%)	0.34	0.41
MgO (%)	0.82	0.79
CaO (%)	0.82	0.79
Na ₂ O (%)	0.39	0.43
K ₂ O (%)	0.59	0.61
L.O.I (%)	11.54	13.02

PHYSICAL PROPERTIES

COMPUND	WCLM CLAY	WCHM CLAY
Visual Appearance	White Lumps	White Lumps
Particle Size (D50) M	2.7 TO 3.5	2.5 TO 3.5
Water Of Plasticity (%)	35.00	34.4
Green M.O.R. (Kg/cm ²)	4.62	5.58
Dry M.O.R. (Kg/cm ²)	12.73	20.07
Fired M.O.R. (Kg/cm ²)	142.37	182.36
Fired Shrinkage (%)	10.12	12.03
FIRE COLOUR (100%) (FIRED TEMPERATURE 1210°C TO 1225°C)	L 92.33, A 0.27, B 6.45	L 89.83, A 0.18, B 9.89
FIRE COLOUR (60% FELDSPAR + 40% CLAY)	L 84.53, A 0.70, B 9.58	L 83.04, A 0.41, B 8.41

WHITE CLAY

KEY CHARACTERISTICS

- Rheological stability
- Unfired strength

APPLICATION

- Ceramic Products, Refractories, Paint, Paper, Glass, Cement, Rubber, Foundry, Plastics Industries etc.





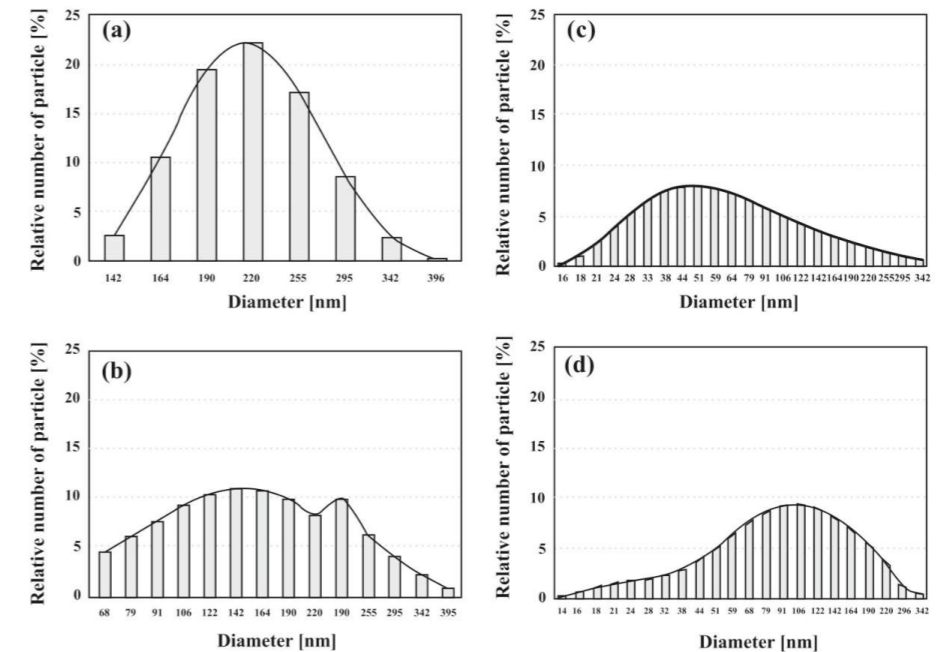
ZIRCONIUM SILICATE

Zirconium silicate, often referred to simply as zircon, is a mineral composed of zirconium, silicon, and oxygen. This naturally occurring compound has several important industrial and commercial applications due to its unique properties.

One of the primary uses of zirconium silicate is in the production of ceramics and refractory materials. Zircon is known for its high melting point and excellent thermal stability, making it an ideal ingredient in the manufacturing of ceramic tiles, bricks, and crucibles that can withstand extreme temperatures. It is also used as a glaze in pottery and porcelain production, providing a glossy finish and enhancing the strength of the final product.



PARAMETERS	SPECIFICATIONS
ZrO ₂ (%)	20 to 62



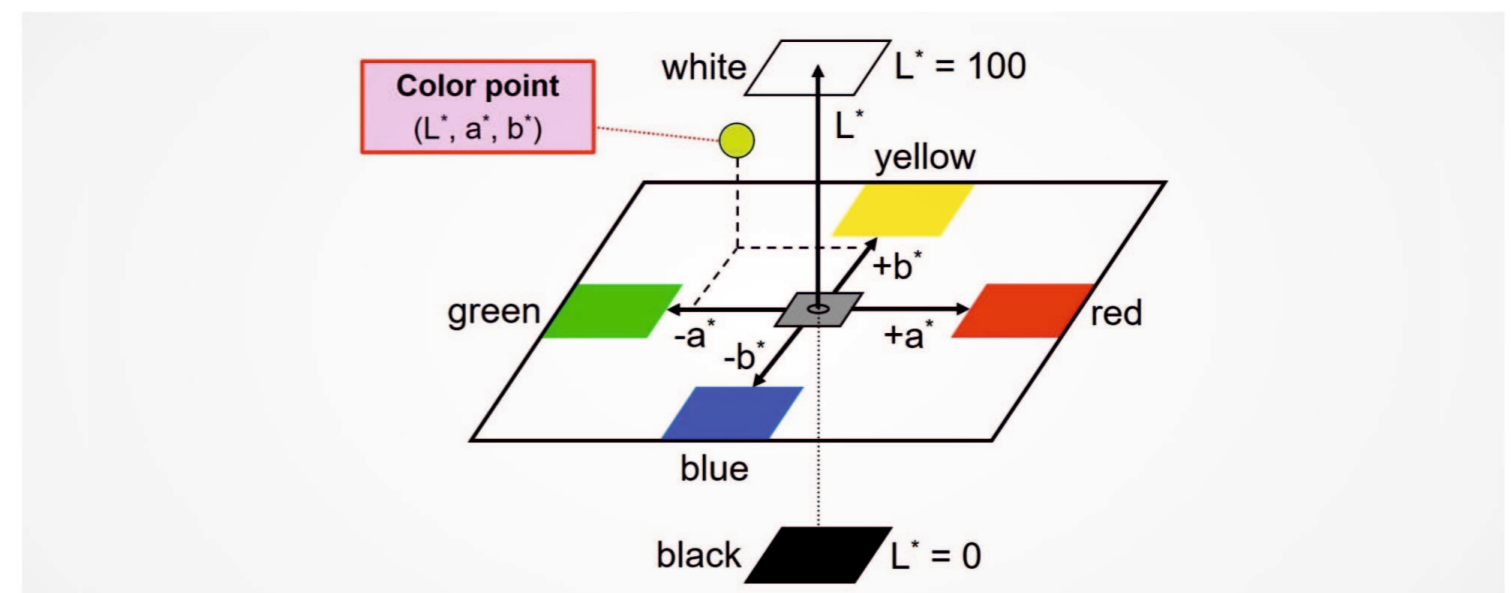
ZIRCONIUM SILICATE

KEY CHARACTERISTICS

- Manages Color Combination

APPLICATION

- Ceramic Products, Refractories, Paint Industries, Paper Industries, Glass Industries etc.





INDONESIA COAL

Jay Ganesh Minerals is your premier source for high-quality Indonesian coal imports. Renowned for its outstanding energy efficiency and low ash content, Indonesian coal is an essential resource for power generation and various heavy industries.

At Jay Ganesh Minerals, we prioritize quality, conducting rigorous checks to ensure that our coal meets the strictest industry standards. Our commitment to sustainability means responsible sourcing practices that align with environmental and ethical guidelines.

PARAMETERS	TEST RESULT
Net Calorific Value (ARB) (KCAL/KG)	4000 TO 6000
Total Moisture (ARB) (%)	20 TO 35
Inherent Moisture (ARB) (%)	10 TO 25
Volatile Matter (ARB) (%)	38 TO 42
Ash (ARB) (%)	5 TO 15
Fixed Carbon (ARB) (%)	40 TO 44
Total Sulphur (ARB) (%)	0.6 TO 0.9
Hardgrove Grindability Index	40 TO 45
AFT (IDT Reducing) (DEG C)	1150 TO 1300
Size (0-100 MM) (%)	90 TO 95

APPLICATION

Electricity generation ,synthetic natural gas production, production of fertilizers, chain stave, etc.



LIGNITE COAL

Our company procures lignite coal through auctions from reputable sources such as GMDC Kutch (Umarsar & MataNoMadh) and NLC India Ltd (Barsingsar Lignite Mines, Bikaner). We maintain a consistent and reliable supply chain to meet the needs of our valued clients.

Lignite is a type of coal, which forms due to accumulations of carbonaceous material derived from vegetation undergone to a process of compaction and slight heating during burial. In general a series of stage under the process of coalification it forms. It is a low carbon content composition.Lignite is a soft, loose, brown in colour moisty fragmental aggregate of vegetable material.

PHYSICAL PROPERTIES OF RAW LIGNITE	
Colour	Brown to Dark Brown
Size at Stockyard	Fine to 30 cms (Normal lump forms)
Constituents	Quality Range
Moisture (%)	32 TO 38
Ash (%)	11 TO 22
Volatile Matter (%)	26 TO 32
Fixed Carbon (%)	17 TO 21
Calorific value (KCAL/KG)	2800 TO 4500
Sulphur (%)	0.6 TO 1.0

APPLICATION

Electricity generation ,synthetic natural gas production, production of fertilizers, chain stave, etc.



NOTES:



THE HOUSE OF COMPLETE MINERAL SOLUTION



* This Catelouge Value for Only Refrence not a Real Value