KAOLIN CLAY – CRUDE RAW

Monthly Capacity:
3000 Metric Ton

Chemical Composition:

Content	SiO_2	Al_2O_3	MgO	K_2O	Whiteness	Purity
	45% – 55%	35% – 38%	≤ 0.5%	1.5% – 3.0%	75% – 90%	95% – 99%

Packing Types / Sizes :

HDPE Bags

PP Bags

Jumbo Bags

+91 8460592889
info@greentradeindia.com

KAOLIN CLAY – CRUDE RAW

Physical & Thermal Properties:

Specification	Details	Specification	Details
Melting Point	1750°C – 1785°C	Thermal Conductivity	Low
Specific Gravity	2.55 – 2.65	Dimensional Stability	Excellent at high temperatures
Density	2.4 – 2.6 g/cm³	Porosity	Low to medium
Strength	Moderate (improves after firing)	Water Absorption	10% – 18%
Hardness	2 – 2.5 (Mohs scale)	Foam	Nil

Usses:

- Ceramic Bodies
- Ceramic Tiles
- Refractory Bricks
- Foundry Applications
- Rubber & Plastic Fillers
- Construction Materials

Physical Appearance:

- **Shape**: Irregular, angular to rounded
- **Lump / Granule Size**: 10–100 mm (customizable)
- **Surface Finish**: Natural / slightly rough

Particle & Structural Properties:

- **Primary particle size (D50):** 1–7 µm
- **Agglomerate size:** 50 µm – several mm
- **Bulk density (loose):** 0.9–1.3 g/cm³
- **Bulk density (tapped):** 1.2–1.6 g/cm³
- **Specific gravity (solid):** 2.58–2.63
- **Residue on 325 mesh (after dispersion):** 2.0–8.0 %

+91 8460592889 info@greentradeindia.com

KAOLIN CLAY – CRUDE RAW

Moisture & Absorption:

Moisture
10–25 %

Water Absorption
40–65 %

Water of Plasticity
30–45 %

Oil Absorption
35–55 g/100 g

Mechanical Properties

Content	Data
Hardness (Mohs)	2.0–2.5
Green strength (dry MOR)	2–4 MPa
Dimensions stability	Moderate (improves after washing)
Handling strength	Moderate
Abrasion loss	Moderate

Shrinkage / Contraction:

Content	Data
Drying contraction	3–6 %
Firing contraction	1–4 %
Total shrinkage	4–10 %
Shape retention	Lower than noodles / granules

Thermal Properties:

Thermal Conductivity
0.2–0.4 W/m·K

Firing Temperature
1100–1300 °C

Thermal shock resistance
Moderate

Typical firing soak
30–90 minutes

+91 8460592889
info@greentradeindia.com

KAOLIN CLAY – CRUDE RAW

Rheology & Slurry Properties

- **Viscosity (Lehmann):** 300–900 cps
- **Slurry density:** 1.55–1.70 g/cm^3
- **Runout time:** 20–50 sec
- **Dispersion behavior:** Slower (requires higher shear)

Deflocculation

- **Compatible deflocculants:** Sodium silicate, Sodium carbonate
- **Optimized addition:** 0.2–0.5 %
- **Typical working dosage:** ~0.3 %

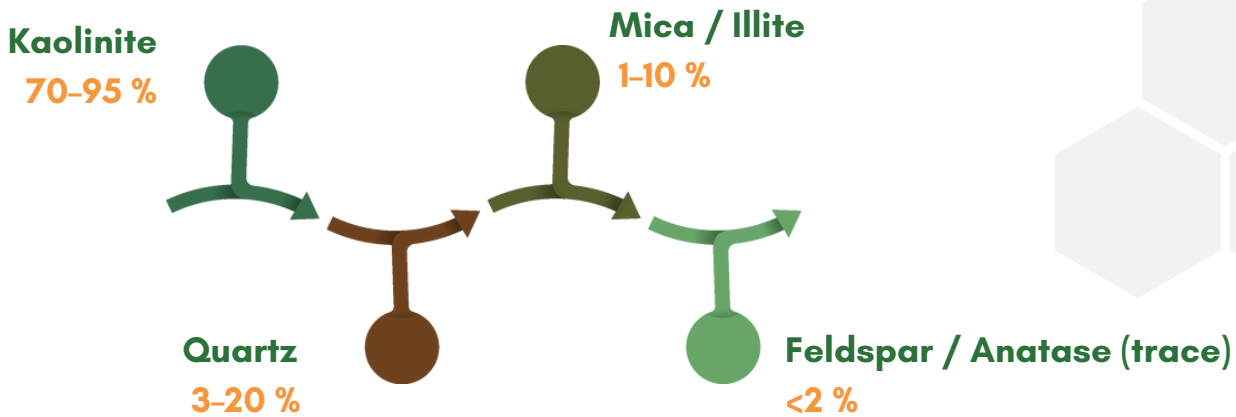
Chemical Properties:

pH (aqueous slurry)	Fluorine (F)	MgO	Water-soluble salts	Loss on ignition (LOI)
4.0–6.0	: <0.02 %	0.1–1.0 %	: <0.2 %	12–15 %

Optical / Color Properties:

- **Yellowness (b value)** 3–8
- **Whiteness** 70–88 %

Mineralogical Analysis (Typical)



+91 8460592889
info@greentradeindia.com