



## TECHNICAL DATA SHEET

Product : Refined Ball Clay

### Refined Ball Clay

It is a compound of refined ball clay from Maetan Mine in Lampang with other additive materials to achieve the excellent quality for sanitary ware production.

#### Chemical Analysis (%)

|                                |       |
|--------------------------------|-------|
| SiO <sub>2</sub>               | 58 %  |
| TiO <sub>2</sub>               | 0.8 % |
| Al <sub>2</sub> O <sub>3</sub> | 26 %  |
| Fe <sub>2</sub> O <sub>3</sub> | 1.8 % |
| CaO                            | 0.3 % |
| MgO                            | 0.7 % |
| K <sub>2</sub> O               | 2.6 % |
| Na <sub>2</sub> O              | 0.2 % |
| Loss on Ignition               | 9.1 % |

#### Slip Test

|                            |            |
|----------------------------|------------|
| Slip Density               | 1.58 kg/L  |
| Fluidity                   | 343 degree |
| Thixotropy at 5 minutes    | 10 degree  |
| Defloculant Demand         | 0.3 %      |
| %Sodium Silicate (d/d)     |            |
| Casting Rate at 30 minutes | 2.0 mm     |
| Soluble Sulphate           | 948 ppm    |
| <b>Residue</b>             |            |
| 106 micron                 | 0 %        |
| 63 micron                  | 0 %        |
| 45 micron                  | 0.32 %     |

#### PARTICLE SIZE DISTRIBUTION: EQUIVALENT SPHERICAL DIAMETER

|              |     |     |    |    |    |
|--------------|-----|-----|----|----|----|
| Microns:     | 1   | 2   | 5  | 10 | 20 |
| % Undersize: | N/A | N/A | 75 | 87 | 90 |

#### DRIED PROPERTIES (At 150 °C ) :

|                         |                            |
|-------------------------|----------------------------|
| Modulus of Rupture[MOR] | 75.3 (kg/cm <sup>2</sup> ) |
| Dried Shrinkage         | 4.8 (%)                    |

#### FIRED PROPERTIES (At 1,230 °C ) :

|                      |     |
|----------------------|-----|
| LOI (%)              | 9.9 |
| Fired Shrinkage (%)  | 10  |
| Water Absorption (%) | 1.3 |
| Fired Color:         |     |
| L*                   | 74  |
| a*                   | 3.0 |
| b*                   | 19  |