

# Corella Resources

## TAMPU KAOLIN DSO

### Description

“As dug” kaolinised granite matrix containing a very high yield of kaolin at typically 70% featuring *exceptional* quality: low contaminants, high brightness, fine particle size, good viscosity and platy crystal shape.

### Availability

Direct Shipped Ore (DSO) at < 10% moisture and max. size 10 cm, in big bags or bulk

### Kaolin Extraction

Kaolin can be easily separated from quartz and trace feldspar / mica by traditional wet refining techniques

### Typical Refined Kaolin Quality \*

#### 1. Blunge; screen at 250 – 500 microns; process by 10” hydrocyclones

**Yield:** 70% kaolin at < 45 um; 5 - 10% fine quartz & feldspar at 20 – 180 um and 20-25% quartz at > 180 um

#### Physical Properties

Yield: 70%  
 ISO Brightness: 85.5%  
 Yellowness: 5.4  
 Fired Brightness @ 1180 deg. C: 93%  
 < 10 microns (Sedigraph): 89%  
 < 2 microns (Sedigraph): 58%  
 Surface Area: 11 m<sup>2</sup>/g  
 Viscosity Concentration: 70%

#### Mineral & Chemical Properties (XRD & XRF)

Kaolinite: 95.6%/Quartz 2.50%/K Feldspar 1.0%/Mica 0.9%  
 Al<sub>2</sub>O<sub>3</sub>: 37.9  
 SiO<sub>2</sub>: 47.6  
 Fe<sub>2</sub>O<sub>3</sub>: 0.41  
 TiO<sub>2</sub>: 0.44  
 K<sub>2</sub>O: 0.41  
 Na<sub>2</sub>O: <0.05  
 LOI: 13.47

#### 2. Blunge; screen at 250 – 500 microns; process by 10” and 2” hydrocyclones

**Yield:** 55% fine kaolin as described below at < 20 um

#### Physical Properties

Yield 50 – 55%  
 ISO Brightness: 86.0%  
 Yellowness: 5.4  
 Fired Brightness @ 1180 deg. C: 95%  
 < 10 microns (Sedigraph): 96%  
 < 2 microns (Sedigraph): 64%  
 Surface Area: 12 m<sup>2</sup>/g  
 Viscosity Concentration: 70%

#### Mineral & Chemical Properties (XRD & XRF)

Kaolinite: 99.3% / Quartz: 0.70%  
 Al<sub>2</sub>O<sub>3</sub>: 38.3  
 SiO<sub>2</sub>: 46.7  
 Fe<sub>2</sub>O<sub>3</sub>: 0.38  
 TiO<sub>2</sub>: 0.35  
 K<sub>2</sub>O: 0.33  
 Na<sub>2</sub>O: <0.05  
 LOI: 13.90

### Typical Refined Sand Quality (> 180 um)

Quartz by Petrographic Analysis: 92%

Total SiO<sub>2</sub> by XRF: 98% (can be increased to > 99% by screening &/or other techniques)

### Samples

Samples are available on request

\* Determined by pilot plant refining of a ROM 760 Kg lot at a leading European kaolin manufacturing company