



PRODUCT SALES SHEET

InterGroup “Brilliant Brumby” Info:

The Brumby Project covers a large license area in a highly prospective region 80km west of Charters Towers Queensland Australia which has remained largely unexplored since the initial gold discoveries were made in the 1930’s. IGM has undertaken detailed exploration and definition work which has resulted in the successful identification of both high-quality kaolin in weathered granite along with quartz vein hosted gold deposits.

IGM was the first company to recognize the kaolin potential of the area in 2017. Results to date have established the potential to upgrade the kaolin to 4N and possibly 5N high purity alumina (HPA) as well as for use as a pozzolan to improve the qualities of concrete and possibly help reduce the large scale of CO₂ emissions by the cement industry. The assessment of this kaolin mineralization is ongoing.

Products & Specifications

The IGM Kaolin resource comprising white weathered kaolinised granite situated on the Lolworth Range, Queensland, contains four discrete industrial mineral products, namely:

- **High purity “Brilliant Kaolin” (GP1)**
- **High purity “Brilliant Silica” (SIL1)**
- **Direct Shipped Mixed Kaolin and Silica Ore (DSO1)**

A series of current specification sheets are contained below:



INTERGROUP HIGH PURITY “BRILLIANT KAOLIN” GP1

(8.29.23)

Description:

A dry high purity kaolin of brilliant white colour. Typically used for the manufacture of ceramics, glass fibre and paints and as a filler where white colour is required.

Specifications:

Typical Chemical and Physical Properties.

Elemental Oxide	Chemistry	IGM Kaolin	
		Brumby GP1*	Comparison Gulgong NSW**
Silica	SiO ₂	46.2%	50.3%
Alumina	Al ₂ O ₃	37.8%	34.3%
Magnesia	MgO	0.1%	0.3%
Potash	K ₂ O	0.67%	1.1%
Soda	Na ₂ O	<0.05%	0.2%
Lime	CaO	0.06%	0.1%
Ferric Oxide	Fe ₂ O ₃	0.81%	0.9%
Titania	TiO ₂	0.15%	1.5%
Loss of Ignition	(1,000 °C)	13.67%	12.0%

Note: *Chemical composition of kaolin sampled from IGM Clydesdale prospect, Lolworth Range, Qld.

Note: **Gulgong NSW kaolin clays are considered a standard for ceramic use in Australia.



Mineralogy

Mineral	%
Kaolin	74.80*
Quartz	5.30
Plagioclase	2.80
K Feldspar	7.70
Mica	6.00
Smectite	3.72
	100.3

Note * DSO target 50±5%

Raw Brightness

Brightness -457nm Unfired

Brumby GP1 82.86

Ceramic Fired Properties

Brightness

%	Contraction	
%	Water Absorption	
92.9	7.5	20.2

Soluble Salts and pH

Total Soluble Salts (ppm) Soluble Sulphate (ppm) pH

92.9 7.5 5.2

Particle Size Distribution:

Sample/PSD	10µ	8µ	5µ	3µ	2µ	1µ	0.5µ	0.25µ	0.1µ
<45 µ product	81%	77%	66%	54%	44%	30%	18%	7%	1%

Size Specification	Brumby GP1	DSO target
% -2 µ	44%	60%±10%

Viscosity = 71.4%

Plasticity (Modulus of Rupture) = 94psi (6.6Kg/cm²)



INTERGROUP HIGH PURITY “BRILLIANT SILICA” SIL1

(8.29.23)

Description:

A dry high purity washed silica sand.

Specifications:

Typical Chemical and Physical Properties.

Element	Chemistry	IGM Silica
		Brilliant SIL1
Silica	SiO ₂	99.7%
Other Elements		<0.5%
Loss of Ignition	(1,000°)	0.2%



Washed sand +1.18 mm. High sphericity; sub angular-sub rounded



Washed sand 600 micron. High sphericity; sub angular

Particle size 0.6-2.56mm



BRILLIANT BRUMBY DIRECT SHIPPED ORE KAOLIN / SILICA (DSO1)

(8.29.23)

Description:

Coarse screened as mined material suitable for separation into kaolin and silica products. Typical kaolin products that can be derived are describe in spec sheets.

Method	Result	Selected DSO
Particle Size (typical)	<2.56mm	
Moisture Content	11 %	
Composition (typical)		
LOI (1,000° C)	7 %	7%
SiO ₂	60 %	
Al ₂ O ₃	31 %	
Fe ₂ O ₃	0.8 %	
K ₂ O	0.9 %	
MgO	0.1 %	
TiO ₂	0.2 %	
CaO	0.01 %	
Na ₂ O	0.04 %	
Theoretical Mica/ Illite	8 %	