

TYPICAL DATA

TEST	UNITS	DIAMOND SANITARY- WARE	DIAMOND BLEND 225	DIAMOND COLAGGIO	DIAMOND R	DIAMOND PROSPER	DIAMOND SWIFT
MODULUS OF RUPTURE	lbs/sq in (kg/cm ²)	350 (25)	225 (16)	150 (11)	150 (10.5)	90 (6)	65 (4.5)
CASTING DATA	Casting Rate mm ² /min	1.0	1.8	3.25	2.5	7.0	15
	Casting Concentration (% solids @ 5 poise)	61	64	68	64	64.5	60
	P84 Demand (% w/w to give a slip @ 5 poise)	0.40	0.40	0.50	0.40	0.45	0.60
VISCOSITY DATA (Gallenkamp Torsion Viscometer)	Overswing (Degrees)	260	345	350	350	356	356
PERMEABILITY (FULL DEFLOC)		N/A	30	50	50	100	>150
FIRED PROPERTIES	Total % Contraction (wet fired) 1180 °C	11.5	9.5	8.0	8.5	8.0	7.5
CHEMICAL ANALYSIS	K ₂ O	3.0	2.75	2.2	2.3	2.3	2.3
	Fe ₂ O ₃	1.0	1.10	1.10	1.30	1.65	1.65
	CaO	0.12	0.08	0.08	0.09	0.05	0.04
METHYLENE BLUE INDEX	m.eq/100g	6.5	4.8	3.7	3.7	3.0	1.8
SOLUBLE SALTS	ppm	150	125	125	125	100	150
PARTICLE SIZE	+53µm	0.5	1.0 max	1.00	1.5 max	6 max	3.00
	-2µm	48	42	37	37	32	30
MINERALOGICAL COMPOSITION %	Kaolinite	70	77	80	80	83	83
	Mica	19	17	15	15	16	16
	Felspar	5	2	1.5	1.5	1	1
	Quartz	3	2	2	2	2	2
	Smectite	3	2	1.5	1.5	-	-

A SUMMARY OF TEST PROCEDURES IS SHOWN OVERLEAF

Goonvean Ltd. was the first china clay company in the UK to be awarded the Certificate ISO 9001. The Company was founded in 1931 and in that time has established a strong reputation for the supply of high quality kaolins for all Ceramic applications. Our products are used by many of the major ceramic producers throughout the world where quality and service are essential.

Product Form and Packing

Products are sold in noodle form with 10% moisture either in bulk, 1 tonne bags or 50kg bags.

Storage As a general guide, 1000kg of kaolin will occupy:-
Noodles in bulk - 1.0 cu metres
Noodles in sacks - 1.1 cu metres

Summary of Laboratory Test Procedures (available on request)

Modulus of Rupture lbs/sq in (kg/cm²)
Measured by Netzsch test equipment on extruded bars 12 mm diameter dried at 110 °C.
Clay slip is not deflocculated.

Casting Data *Casting Concentration*
% solids of clay which gives a viscosity of 5 poise when the slip is fully deflocculated by P84 Sodium Silicate.

Casting Rate mm²/min
Thickness of cast in plaster mould, measured in mm²/min after 4 mins. Slip used at the Casting Concentration.

P84 (Sodium Silicate) Demand
Quantity of P84 w/w required to fully deflocculate slip.

Viscosity Data *Torsion Viscometer (°)*
Gallenkamp Torsion Viscometer using ¹¹/₁₆” bob and 30 s.w.g. gauge wire. Slip at 60.4% solids with fixed addition of C100. (C100 = Na₂SiO₂:2SiO₂)

Fired Properties *Fired Colour (% reflectance at 495 nm) and Total Contraction (wet-fired).*
Measurements are made on a pressed clay disc, fired to 1180 °C, using the following firing schedule:- Ambient to 990 °C @ 3°/min; 80 min soak; 990 °C – peak @ 0.8°/min, 45 min soak

Chemical Analysis *K₂O %* XRF.
Fe₂O₃ % XRF.
M.B.I. m.eq/100g Methylene Blue Index – dye adsorbed on surface of clay particles.
Soluble Salts (ppm) Conductivity of clear filtrate from 33% suspension.

Particle Size + 53µm % Particles retained on BSS 300 mesh
- 2µm % Sedigraph – measured on a 5% w/v fully deflocculated suspension.

Mineralogical Composition *Kaolinite %*
Mica %
Felspar % All measured by XRD.
Quartz %
Smectite %

Data The data quoted are determined by the use of Goonvean Standard Laboratory Test Procedures. Whilst every effort is taken to ensure the accuracy of technical information, the contents of this publication are not intended to constitute, or to be construed as product specification.

Conditions of Sale Sales are in accordance with our “Conditions of Sale”, copies of which will be supplied upon request.

Further Information Should you require any further information or advice on our products, please contact us at the address given below.

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