

# HAMMILL & GILLESPIE, INC.

154 South Livingston Avenue  
PO Box 104  
Livingston, NJ 07039  
USA  
Tel: 201-994-3650  
Fax: 201-994-3847

Importers, Exporters & Manufacturers  
Of Non-Metallic Mineral Products  
and Chemicals

Natural ♦ Processed ♦ Synthetic

## BLACKBIRD CLAY

[ALSO KNOWN AS "BARNARD"]

### Description

A dark burning kaolin-type clay containing iron and manganese. Fired color is dark brown at Cone 02 to black at Cone 7. Principal applications are in brick coating, artware, tile and specialty formulations.

### Chemical Analysis [typical]

Oxide	Weight Percent
SiO <sub>2</sub>	59.70
Al <sub>2</sub> O <sub>3</sub>	10.87
Fe <sub>2</sub> O <sub>3</sub>	14.65
TiO <sub>2</sub>	0.67
CaO	0.27
MgO	0.75
MnO	3.40
K <sub>2</sub> O	2.04
Na <sub>2</sub> O	0.12
Loss on Ignition	7.48
Total	99.95

Minor constituents: BaO, PbO, ZrO<sub>2</sub>, SrO, NiO

### Mineral Analysis

A naturally occurring mixture of kaolin, illite, quartz and other minerals. The clays are poorly crystallized and constitute about half of the overall material, with kaolin constituting less than 25%. Quartz is approximately 15%.

CONTAINS FREE SILICA

DO NOT BREATHE DUST

- May cause delayed lung injury (silicosis)
- Follow OSHA safety and health standards (quartz)
- See the Material Safety Data Sheet for detailed information

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## Particle Size Analysis [typical]

US Standard Sieve Number	Percent On	Particle Size, microns	Cumulative Percent Finer	Cumulative Percent Coarser
140	4.17	105	95.83	4.17
200	9.22	74	86.61	13.39
270	1.98	53	84.63	15.37
325	1.35	44	80.40	16.72
Values from 30 to 0.5 micron are from Sedimentation Analysis Using Micromeritics Sedigraph		30	72.62	27.38
		20	65.96	34.04
		15	61.88	38.12
		10	55.46	44.54
		8	51.80	48.20
		6	46.64	53.36
		4	39.31	60.69
		2	27.48	72.52
		1	18.40	81.60
		0.5	11.33	88.67

