



AMERICAN COLLOID COMPANY

POLARGEL® NF

- General Description:** A specially processed, water-washed product, Polargel is a selectively-mined sodium montmorillonite clay, supplied as a white micro fine powder.
- Functional Use:** Suspending agent, viscosifier, binder and emulsion stabilizer for Cosmetics, Pharmaceuticals Personal Care products where low grit, light color, and high purity are required.
- Purity:** This mineral is specially processed to control both purity and performance.
- Solubility:** Insoluble in water or alcohol; one gram of clay produces a surface area greater than 750 sq. meters when fully dispersed.
- Dry Particle Size:** Minimum 99.00% finer than 200 mesh (74 microns).
- Wet Particle Size:** Minimum 99.75% finer than 200 mesh (74 microns).
Minimum 99.00% finer than 325 mesh (44 microns).

<u>Test Description</u>	<u>Specification</u>	<u>Method</u>
pH (5% solids)	9.0 – 10.0	USP <791>
Viscosity (5% solids)	40 – 200 cps	NF 34 Purified Bentonite
L.O.D.	8.0 % Maximum	USP <731>
Free Swell	24 mls Minimum	NF 34 Purified Bentonite
Gel Formation	2 mls Maximum	NF 34 Purified Bentonite
Fineness of Powder	No Grit Felt	NF 34 Purified Bentonite
Arsenic	3 ppm Maximum	USP <233>
Lead	15 ppm Maximum	USP <233>
<u>Microbial Limits</u>		
Aerobic Plate Count	<10 CFU/g	USP <61/62>
Yeast & Mold	<10 CFU/g	USP <61/62>
P. aeruginosa	Negative / 10g	USP <61/62>
S. aureus	Negative / 10g	USP <61/62>
E. coli	Negative / 10g	USP <61/62>

- Chemical Formula:** Dioctahedral smectite, an expanding layer silicate:
 $(\text{Na,Ca})_{0.33}(\text{Al}_{1.67}\text{Mg}_{0.33})\text{Si}_4\text{O}_{10}(\text{OH})_2 \cdot n\text{H}_2\text{O}$
- Packaging:** 4-ply poly-lined package in boxes, moisture resistant, 50 pound net.

Elemental

Composition: Typical analysis – moisture free.

SiO ₂	75.44 %	CaO	2.29 %
Al ₂ O ₃	15.28 %	Na ₂ O	1.25 %
MgO	2.54 %	K ₂ O	1.00 %
Fe ₂ O ₃	1.65 %	LOI	4.20 %

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