

TRÈS BN[®] Cosmetic Powders PUHP1106 and PUHP1107

Surface treated boron nitride powders for color cosmetics and skin care



Achieving the perfect balance in the way a cosmetic product affects our senses, flows through a process and costs, are the formulator's challenge. TRÈS BN powders work in synergy with many other materials to achieve this balance. Whether it's the shimmer of an eye shadow, the coverage in a foundation, or higher yield in the extrusion process, TRÈS BN[®] powders offer formulators many solutions wrapped into one material.

Hexagonal boron nitride (hBN) is a synthesis of Borax (natural mineral) and a Nitrogen source at high temperature resulting in a lamellar structure that resembles graphite, except pure hBN is white. TRÈS BN Cosmetic Powders are Ultra-High Purity (UHP) versions of this lamellar form with each layer or cleavage face containing boron and nitrogen. There is no B-N bonding between layers and therefore planes slide over one another, creating a soft and lubricating effect.

TRÈS BN surface treated grades PUHP1106 and PUHP1107

TRÈS BN cosmetic grade PUHP1106 and PUHP1107 are ultra-purity boron nitride powders that are surface treated with silicones. Both are produced from 6 um boron micron (PUHP500) by surface treating with dimethicone (PUHP1106) for an even more luxurious slip or with methicone (PUHP1107) for the ultimate in hydrophobicity.

PUHP1106 and PUHP1107 powders are more readily dispersed in the oil phase than standard PUHP500. They are ideal additives for two-way compacts, concealers, foundations, skincare, and more.

A Beautiful Alternative

TRÈS BN grades PUHP1106 and PUHP1107 may be used as major stand-alone components in pressed and loose powders, or as minor additives to formulations for improved texture, enhanced luminosity, decreased tack and increased pick-up and play-time in skin creams. In formulations where talc, mica or bismuthoxychloride are undesirable or fall short on performance, TRÈS BN powders offer a perfect alternative.

Features / Benefits

- Lamellar crystal structure improves texture
- Soft and lubricious for superior spreading and adherence
- Decreases tack by absorbing excess oils
- Chemically inert and stable
- Surface treated with silicones

Key Applications

- Foundation and liquid makeup
- Concealers, BB Cream
- Loose and pressed powder
- Lipstick
- Pencils
- Sunscreen and moisturizers

Target Markets

- Color cosmetics
- Skin care and personal care

Typical Properties		PUHP1106	PUHP1107
Crystal Structure		Hexagonal	Hexagonal
Boron Nitride	%	96	96
Silicone		Dimethylhydrogen Siloxane	Methylhydrogen Siloxane
	%	2 - 4	2 - 4
Oxygen*	%	0.3	0.3
B2O3*	%	0.02	0.02
Hg*	ppm	< 1	< 1
As*	ppm	< 1	< 1
Pb*	ppm	< 1	< 1
Tap Density*	g/ cc	0.4	0.4
Particle Size (d50)*	μ	6	6
Screen (- 400 US mesh)*	%	99.9	99.9

* tested prior to surface treatment

Trade Information

Trade Name TRÈS BN®
 INCI Names Boron Nitride and Methicone (for PUHP1107)
 Boron Nitride and Dimethicone (for PUHP1106)
 JCIC code 523146
 EINECS Number 233-136-6
 CAS No. 10043-11-5, 63148-57-2 (PUHP1107)
 CAS No. 10043-11-5, 63148-62-9 (PUHP1106)

REACH Ref. No. 01-2119947399-20-0003

Toxicology

TRÈS BN Cosmetic Powders have had product safety evaluations conducted by an independent laboratory and were determined to be completely safe for cosmetic use in all parts of the world. Boron Nitride powders are inert and non-toxic. Please refer to the MSDS available at www.tresbn.com for further information.

Storage Recommendations

TRÈS BN powders are expressly manufactured for cosmetic use. The proprietary methods used in their manufacture ensure final powders that are of the highest purity. When stored with a desiccant in cool, humidity controlled conditions, TRÈS BN powders will remain fresh up to 24 months after date of shipment.

For further information, please contact your TRÈS BN specialist at bnsales@saint-gobain.com.

TRÈS BN® is a registered trademark of Saint Gobain Advanced Ceramics.

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