台中市南屯區工業 24 路 29 號 TEL: 886-4-23501155(代表) FAX: 886-4-23507373 E-mail: anvictor@ms45.hinet.net 網站: www.twanfong.com

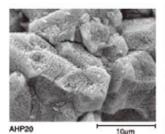
日本輕金屬(NLM)公司導熱性氧化鋁、氫氧化鋁、 拋光研磨用氧化鋁資訊

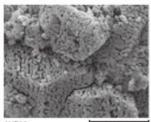
A.高純度氧化鋁(99.99%)高導熱係數:用於CCL基板,LED,半導體封裝料。

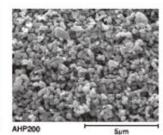
ALUMINA

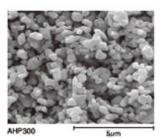
High Purity Alumina

AHP series is High Purity Aluminas with purity of 99.99% or higher. It is used as a raw material for high-perfomance glass and ceramics that require excellent optical and dielectric properties, and as a synthetic raw material for various industrial materials.









Typical Properties				
Grade	AHP20	AHP30	AHP200	AHP300
Na (ppm)	20	12	20	12
Si(ppm)	8	8	10	8
Fe (ppm)	2	1	2	2
Ca (ppm)	1	<1	1	<1
Mg (ppm)	1	<1	3	2
Al ₂ O ₃ (%)	99.99	99.99	99.99	99.99
Ave. Particle Size (µm)	30	30	0.4	1.0
a-Crystal Size(μm)	0.2~0.4	1.0~1.5	0.2~0.4	1.0~1.5
BET Specific Surface Area (m²/g)	3.5	2.0	6.2	2.7
Bulk Density (Loose) (g/cm³)	0.7	0.7	0.8	0.8

Particle Size Distribution

100 90 80 80 AHP200 AHP300 AHP300 10 0,1 1 10 100 300 Particle size (µm)

Applications

- (1) Magnetic recording media
- (2) Single crystal (e.g., Sapphire)
- (3) Translucent ceramics
- (4) Fluorescent materials
- (5) Thermal spray materials
- (6) Engineering ceramics

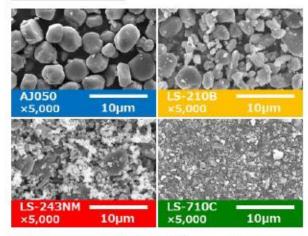
Packing

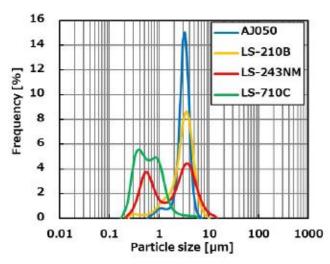
Paper bag Plastic bag

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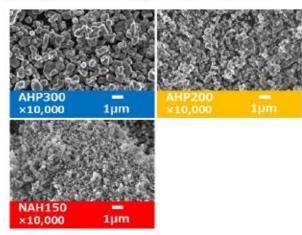
B.氧化鋁(Alumina): AJ050、LS-210B、LS-243NM、LS-710C

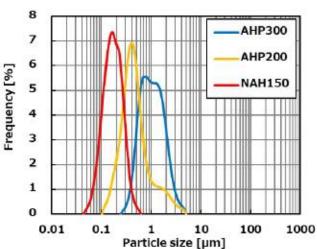
Alumina





High purity Alumina





C.低黏度表面處理的氫氧化鋁:BX系列,較佳的相容性,增進分散。

ALUMINUM HYDROXIDE

Low Viscosity/Surface Treated Aluminum Hydroxide

The BX series provides broad particle size distributions suitable for high loading. Surface treated products are developed to realize better compatibility of aluminum hydroxide with resins. The better compatibility with resins works to improve the

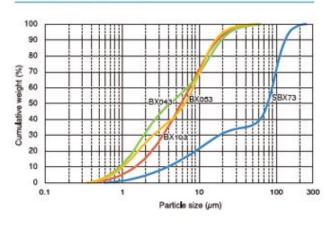
loadability and dispersibility of aluminum hydroxide in resins and the mechanical strength of compound. Particular efforts are made to make sure that we offer optimum grades depending on customer's requirements.

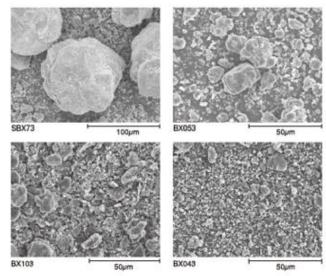
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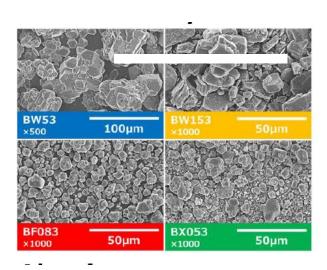
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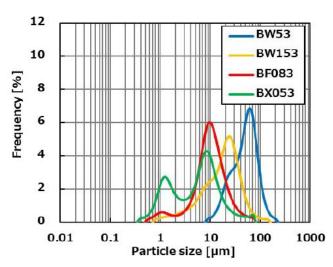
Grade	SBX73	BX053	BX103	BX043
Moisture (%)	0.10	0.10	0.20	0.20
Na ₂ O (%)	0.22	0.16	0.24	0.23
f-Na ₂ O(%)	0.03	0.01	0.05	0.02
SiO ₂ (%)	0.01	0.01	0.01	0.01
Fe ₂ O ₃ (%)	0.01	0.01	0.01	0.01
AI(OH) ₃ (%)	99.7	99.8	99.7	99.8
Ave. Particle Size (µm)	60	6	5	3
Oil Absorption (m £ /100g)	20	28	33	33

Particle Size Distribution









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D.低鈉氫氧化鋁:BF、BW、BE 系列更增進電氣特性,耐熱性特別用在電子材料上。 BW 系列也可以用不飽和聚酯或壓克力樹脂的人造大理石。BE 系列更限制鈉含量,提供更加的耐熱性及絕緣性。

ALUMINUM HYDROXIDE

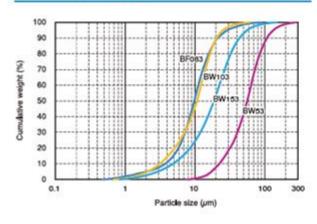
Low Soda Aluminum Hydroxide

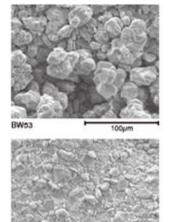
Low soda aluminum hydroxide BF083, BW and BE series further improve electric characteristics and heat resistance therefore finding special use in electronic materials. The BW series is also a product with limited colored organics and is widely used as filler for synthetic marbles made of unsaturated polyester or acryl resin. The BE series, further limiting soda content, provides excellent heat resistance and insulation.

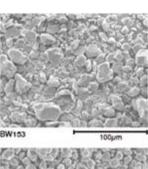
BW Series, BF083

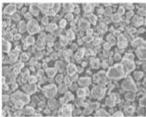
Typical Properties				
Grade	BW53	BW153	BW103	BF083
Moisture(%)	0.02	0.10	0.20	0.10
Na ₂ O(%)	0.02	0.02	0.02	0.08
f-Na ₂ O(%)	< 0.01	< 0.01	< 0.01	< 0.01
SiO ₂ (%)	0.01	0.01	0.01	0.01
Fe ₂ O ₃ (%)	0.01	0.01	0.01	0.01
AI(OH) ₃ (%)	99.9	99.9	99.9	99.9
Ave. Particle Size(µm)	54	19	10	10
Oil Absorption (m £ /100g)	30	30	35	30

Particle Size Distribution









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E.研磨/抛光用氧化鋁:矽晶圓拋光漿料(CMP slurry),建議用下列不同粒徑氧化鋁。

1. 組抛:用LS-719

2. 中拋與細拋:轉換用A. C50: 20um - 次粒徑為250nm。 B. C50C: 20um - 次粒徑為650nm。

C. C500:800nm, 一次粒徑為500nm。

粗粒徑已剔除的:LS-711CQ, D50:500nm。SLS-710Q, D50:500nm

研磨材用アルミナ

Aluminas for Polishing

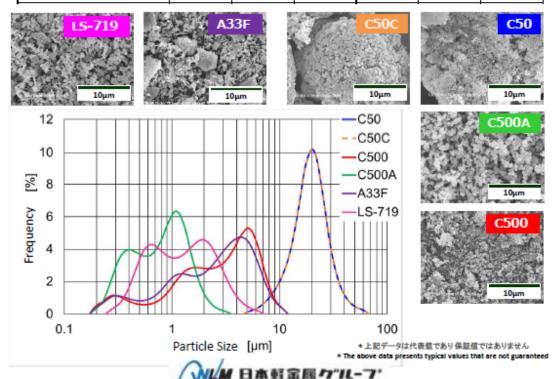
粒径制御 1次、2次粒子のサイズを最適化

Particle Size Control Optimized primary and secondary particle size

研磨特性 切れと光沢を両立し、鏡面研磨が可能

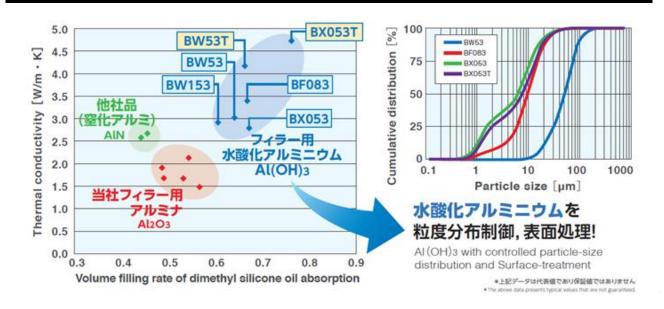
Polishing Properties Ideal balance of cutting and polishing achieves mirror finish

品名	LS-719	A33F	C50C	C50	C500A	C500
BET (m²/g)	4	17	4	7	5	20~50
a-crystal size (µm)	0.4~0.6	-	0.6~0.7	0.2~0.3	0.5	-
Dp50 (μm)	1.0	2.4	20	20	0.8	3.0
DOP oil absorption (ml/100g)	38	58	80	90	40	60
a content (%)	90	50	99	99	93	42
Specific gravity (g/cm³)	3.96	3.79	3.98	3,98	3.98	3.50



Nippon Light Metal Group

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