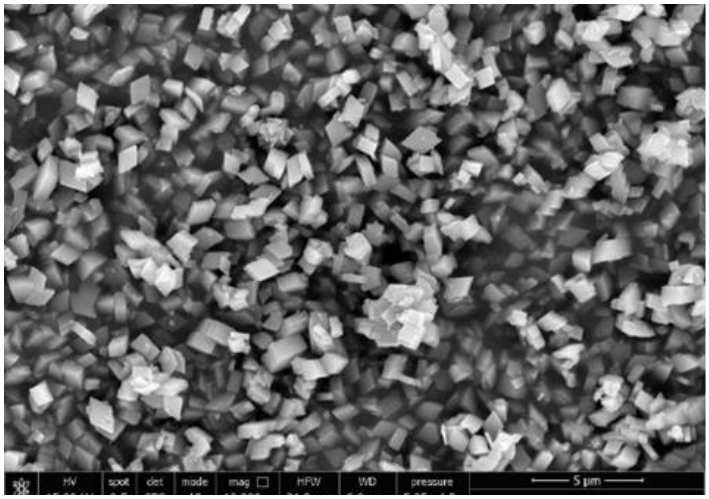
TECHNICAL DATA SHEET

Preliminary Specification

ALUPREM® TB

Alumina Monohydrate (Boehmite)

Specially designed boehmite for coating of lithium battery separators (LIBS) for fire safety



Scanning Electron Microscope (SEM) picture of ALUPREM TB-1.0/XU boehmite

	TB-0.4/X	TB-0.7/X	TB-1.0/XU	TB-1.5/XU	TB-2.0/XU
CHEMICAL ANALYSIS (Typical)					
AlO(OH) content, %	99.9	99.9	99.9	99.9	99.9
Na_2O, total %	0.05	0.05	0.05	0.05	0.05
CaO, %	0.02	0.02	0.02	0.02	0.02
Fe_2O_3, %	0.010	0.010	0.010	0.010	0.010
Moisture Content (105° C), %	0.6	0.3	0.2	0.2	0.2
Loss on Ignition (LOI) (1200° C), %	17	17	17	17	17
PHYSICAL ANALYSIS (Typical)					
Particle Size – d_{10} , (µm)	0.2	0.3	0.6	0.7	0.7
– d_{50} , (µm)	0.4	0.7	1.0	1.5	2.0
– d_{90} , (µm)	1.0	1.5	2.5	3.5	4.0
Specific Density, (g/cm3)	3	3	3	3	3
Bulk Density, (kg/m^3)	450	450	500	550	550
Surface area, BET (m2/g)	25	6	5	4	3.5
+ 45 µm, %	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01

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Preliminary Specification

ALUPREM® TB Boehmite

Grid Energy Storage

Electric Vehicles

Performance Benefits:

- ✓ High temperature stability/low shrinkage
- ✓ Excellent dispersion and stability
- ✓ Low surface area/moisture
- ✓ 25% lower density than Al_2O_3
- ✓ High thermal conductivity
- ✓ Low impurities
- ✓ Low Mohs hardness
- ✓ Good acid resistance

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