

We Built the Battery. Now We Make What Makes It Better.

Volta is a graphene solution developed as a cathode conductive additive for lithium-ion and metal-ion battery systems — targeting the conductivity and surface area gaps that Super-P and conventional carbon additives leave behind.

✓ 2 Indian Patents

✓ Battery R&D Heritage — Capattery

✓ Third-Party Cell Testing

✓ Superior Conductivity

✓ Make in India



Origin Story

Novo Graphene's battery work started with a cell — not a material. Under the Capattery brand, the team built graphene-enhanced LFP cells and had them independently tested. Those cells delivered 5,882 mAh capacity at standard rates and demonstrated exceptional safety in ARC testing.

That cell-level experience informs every specification decision Volta makes. Most graphene suppliers have never built a cell. We have.

Volta vs Market Alternatives

Parameter	Super-P	Ketjen Black	CNT (MWCNT)	Volta [Literature]
BET Surface Area	55–65 m ² /g	800–1,500 m ² /g	150–300 m ² /g	200–500 m ² /g
Bulk Density	~160 kg/m ³	~100–150 kg/m ³	50–100 kg/m ³	20–100 kg/m ³
Particle / Feature Size	30–50 nm primary particles (agglomerates)	30–50 nm primary, hollow structure (agglomerates)	Dia: 8–15 nm, Length: 5–15 µm	Lateral: 1–25 µm, 1–10 layers
Resistivity (Ω.cm)	0.01–0.1	0.01–0.1	~10 ⁻⁴	10 ⁻⁵ – 10 ⁻³
Conductivity	Baseline	Similar to Super-P	Strong	High — 1,000–10,000 S/m
Dispersion in Slurry	Low–Moderate	Moderate–High agglomeration	High — entanglement risk	Low — planar, no entanglement

Internal comparative analysis. Electrochemical validation in progress.

What Volta Delivers



Lower internal resistance

Denser electron transport network, less heat under load, stable voltage at high discharge rates



Better capacity utilisation

Higher surface area ensures more active material participates in every charge and discharge cycle



Faster charging

Lower charge transfer resistance means the electrode accepts charge more efficiently without accelerated degradation



Extended cycle life

Uniform dispersion reduces localised stress on active material, distributing degradation evenly across the electrode



Production-viable

Engineered for standard slurry processes at a cost point viable for volume cell manufacturing

Integration — Standard Process

Volta integrates into existing NMP-based and water-based cathode slurry processes. Same mixing equipment as Super-P. No new capital required.

Compatible with: LFP • NMC • NCA • Other metal-ion cathode chemistries

Ready to Use Volta in Your Formulation?

Characterised samples available for qualified cell manufacturers and R&D teams.

info@novographene.com

Call: +919970920022

www.novographene.com