

# 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]
<b>BET Surface Area</b>	55–65 m <sup>2</sup> /g	800–1,500 m <sup>2</sup> /g	150–300 m <sup>2</sup> /g	200–500 m <sup>2</sup> /g
<b>Bulk Density</b>	~160 kg/m <sup>3</sup>	~100–150 kg/m <sup>3</sup>	50–100 kg/m <sup>3</sup>	20–100 kg/m <sup>3</sup>
<b>Particle / Feature Size</b>	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
<b>Resistivity (Ω.cm)</b>	0.01–0.1	0.01–0.1	~10 <sup>-4</sup>	10 <sup>-5</sup> – 10 <sup>-3</sup>
<b>Conductivity</b>	Baseline	Similar to Super-P	Strong	High – 1,000–10,000 S/m
<b>Dispersion in Slurry</b>	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.

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