

# Graphene -A+ Battery Grade



High surface area graphene with excellent electrical and thermal conductivity, many-particles thickness go down to single-layer graphene. It is easily dispersible in various battery solvents such as NMP.

THICK: ~0.8-1.6 nm



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# PRODUCT FEATURES

# ADG-A+

Purity: > 99%

## Advantages

- ▶ It has exceptional electrical conductivity, allowing for efficient electron transport within the battery system.
- ▶ Easily dispersible in many solvents.
- ▶ The increased surface area provides more active sites for electrochemical reactions, facilitating higher energy and power densities.
- ▶ Its high surface-to-volume ratio and ability to accommodate ions on its surface make it an ideal material for enhancing the capacity of batteries, leading to long-lasting power sources.
- ▶ It can withstand repeated charge and discharge cycles without significant performance degradation, resulting in a longer battery lifespan.
- ▶ It can offer faster charging capabilities due to its high electrical conductivity and efficient ion diffusion.

## Applications

Lithium-ion Batteries  
(Li-ion)

Sodium-ion Batteries  
(Na-ion)

Aluminium-ion Batteries  
(Al-ion)

Zinc-Ion Batteries (Zn-Ion)

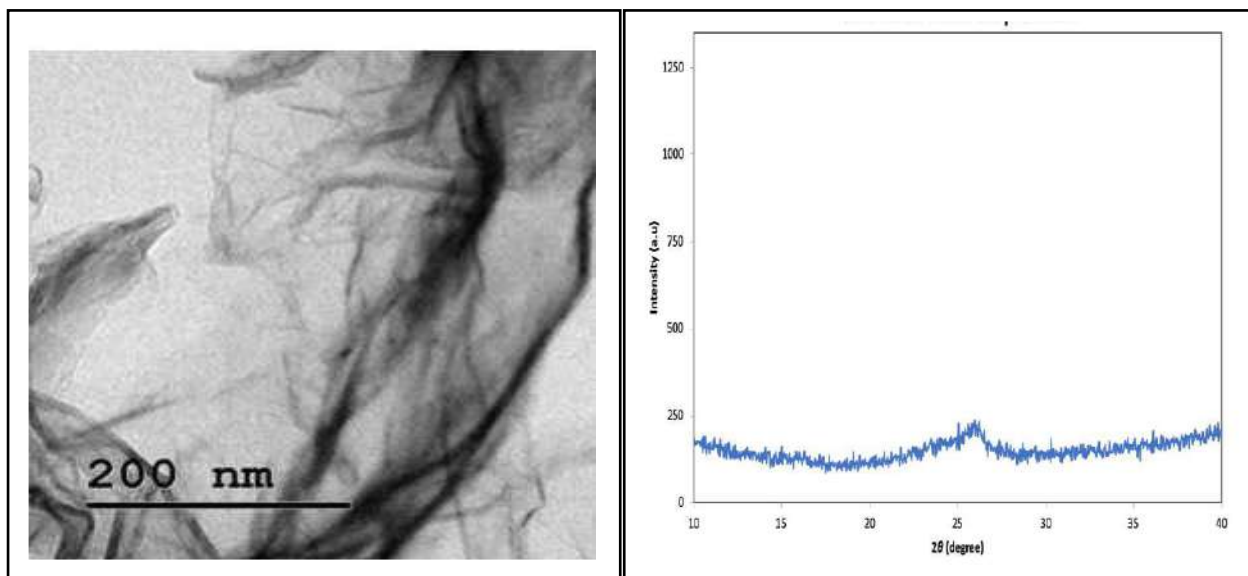
Lead Acid  
Batteries

Super Capacitor

# TECHNICAL DATA SHEET

## SPECIFICATION

ADG-A+	DESCRIPTION
PURITY	99%
PRIMARY LATERAL DIMENSION	< 1 $\mu$
PARTICLE SIZE	D50: < 30 $\mu$
THICKNESS	0.8 – 1.6 nm
BULK DENSITY	0.014 g/cm <sup>3</sup>
PHYSICAL FORM	FLUFFY POWDER
COLOUR	BLACK
SURFACE AREA	~ 400 m <sup>2</sup> /g
CAS NO.	7782-42- 5



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