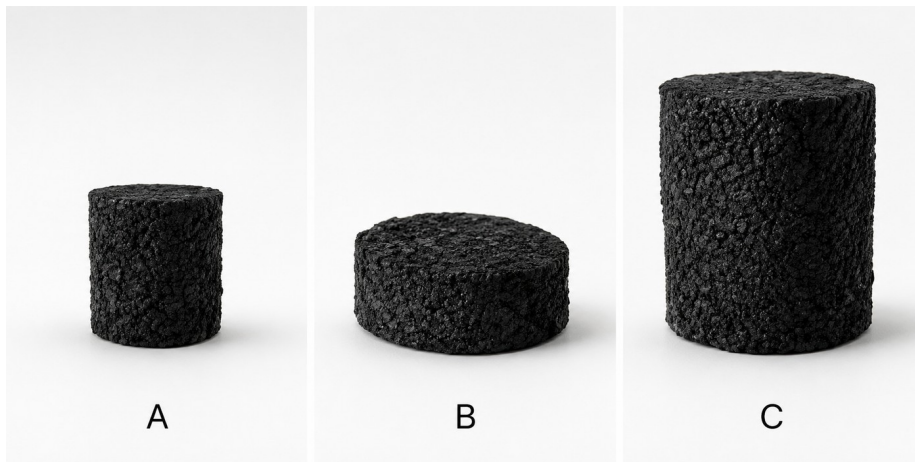


TECHNICAL DATA SHEET

## Graphene Aerogel / N-Doped Graphene Aerogel

*Aerographene · ultralight 3D graphene monoliths · hydrothermal + freeze-dried · CAS 7782-42-5*



*ACS Material Graphene Aerogel — monolithic black cylinders, Types A / B / C (image not to scale).*

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## SECTION 1

## Preparation Method

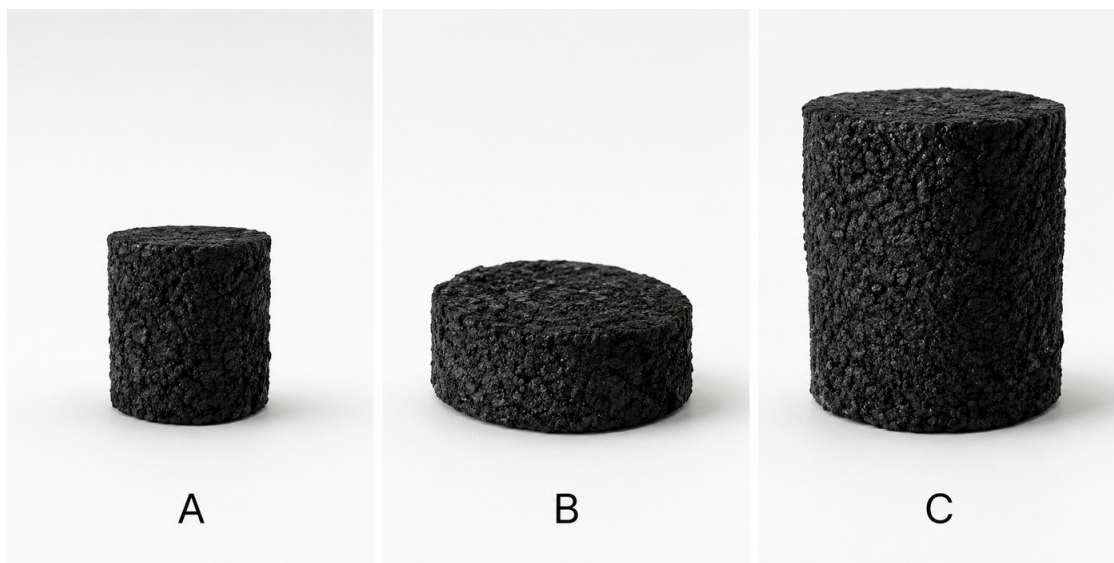
Hydrothermal Method. A graphene-oxide dispersion self-assembles under hydrothermal conditions into a three-dimensional hydrogel, which is then dried by a low-temperature freeze-drying process that preserves the porous network. Shelf life is 1 year.

## SECTION 2

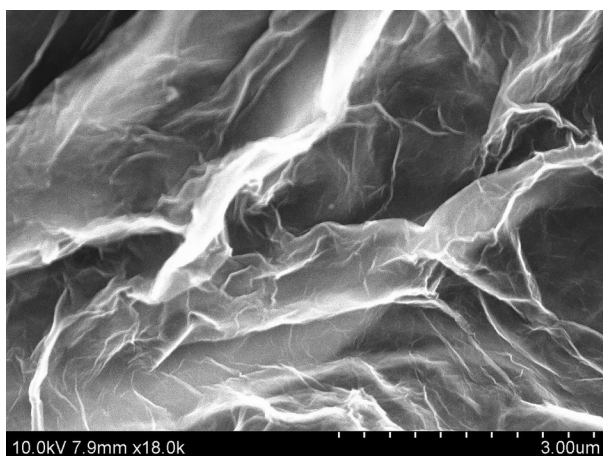
## Characterizations

|                                               | Graphene Aerogel   |                    |                          | N-Doped Graphene Aerogel |                     |                     |
|-----------------------------------------------|--------------------|--------------------|--------------------------|--------------------------|---------------------|---------------------|
| Type                                          | Type A             | Type B             | Type C<br>(Discontinued) | Type A<br>(N-doped)      | Type B<br>(N-doped) | Type C<br>(N-doped) |
| Appearance                                    | Black Cylindrical  | Black Cylindrical  | Black Cylindrical        | Black Cylindrical        | Black Cylindrical   | Black Cylindrical   |
| Ave. Size* (cm)<br>H (Height)<br>D (Diameter) | H: ~2.8<br>D: ~2.7 | H: ~3.0<br>D: ~5.0 | H: ~5.6<br>D: ~5.0       | H: ~2.8<br>D: ~2.7       | H: ~3.0<br>D: ~5.0  | H: ~5.6<br>D: ~5.0  |
| Purity                                        | >99%               | >99%               | >99%                     | >99%                     | >99%                | >99%                |
| N (wt. %)                                     | --                 | --                 | --                       | 0.2                      | 0.2                 | 0.2                 |

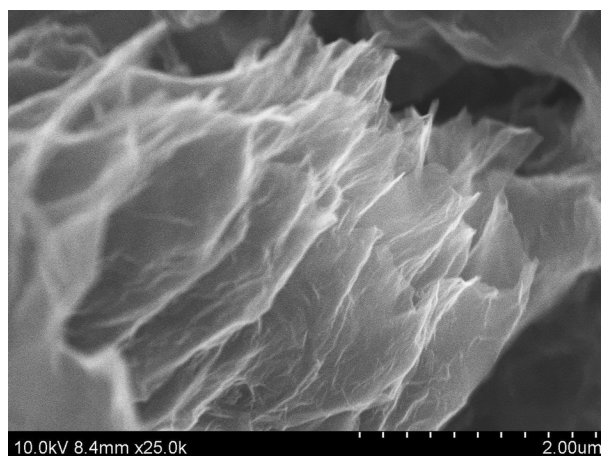
\*Note: Each piece is unique, and the information in the table is for reference only. The actual size, density and weight may vary.



Product Image of ACS Material Graphene Aerogel / N-Doped Graphene Aerogel (not to scale).



Typical SEM Image of ACS Material Graphene Aerogel / N-doped Graphene Aerogel (1)



Typical SEM Image of ACS Material Graphene Aerogel / N-doped Graphene Aerogel (2)

### SECTION 3

## Application Fields

- Energy storage materials
- Sensors
- Supercapacitors
- Absorption of oil and organic pollutants

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