

Sodium Iron Phosphate Pyrophosphate (NFPP) Cathode Powder

Document ID: TDS-NFPP-4H | Document type: Product Technical Datasheet

1. Product Identification

Field	Information
Product name	Sodium Iron Phosphate Pyrophosphate (NFPP) Cathode Powder
SKU / product family	NFPP-4H
Product category	Sodium-ion cathode active material
Material / chemistry	NFPP; confirm exact stoichiometry on the batch COA
Supplier reference	https://item.taobao.com/item.htm?id=812310940842
Document type	Product Technical Datasheet

2. Product Description

Sodium Iron Phosphate Pyrophosphate (NFPP) Cathode Powder (NFPP-4H) is an active material intended for laboratory-scale sodium-ion battery research, materials evaluation, electrode formulation, and cell validation. Supplier-derived values are presented for product selection reference. Confirm the current batch specification, exact composition, and available documentation before purchase or use.

3. Technical Data

Technical values are supplier-derived reference values and may vary by batch.

Property	Unit	Supplier specification	Supplier typical
Particle size D10	um	≥ 1.0	1.42
Particle size D50	um	6.5 ± 1.0	6.60
Particle size D90	um	≤ 15.0	13.52
Particle size D100	um	≤ 25.0	23.99
Specific surface area	m ² /g	8.0 ± 1.5	8.2
Compacted density	g/cm ³	2.15 ± 0.05	2.16
Moisture	ppm	$\leq 1,000$	780
pH	-	10 ± 1	10.58
Sodium (Na)	%	14.0 ± 0.5	14.01
Iron (Fe)	%	25.0 ± 0.5	24.6
Phosphorus (P)	%	19.5 ± 1.0	19.2
Carbon (C)	%	1.7 ± 0.2	1.71
Magnetic contaminants	ppb	$\leq 1,000$	169
Manganese (Mn)	ppm	≤ 200	13.5
Magnesium (Mg)	ppm	≤ 100	23.1
Copper (Cu)	ppm	≤ 10	N.D.
Chromium (Cr)	ppm	≤ 50	18.2
Zinc (Zn)	ppm	≤ 50	29.5
Nickel (Ni)	ppm	≤ 50	0.6
First charge capacity	mAh/g	≥ 112	115.39
First discharge capacity	mAh/g	≥ 100	103.73
First-cycle Coulombic efficiency	%	≥ 88	89.89

Supplier electrochemical condition: CR2032 half cell, 1.5-3.8 V, 0.1C charge / 0.1C discharge.

4. Available Configurations

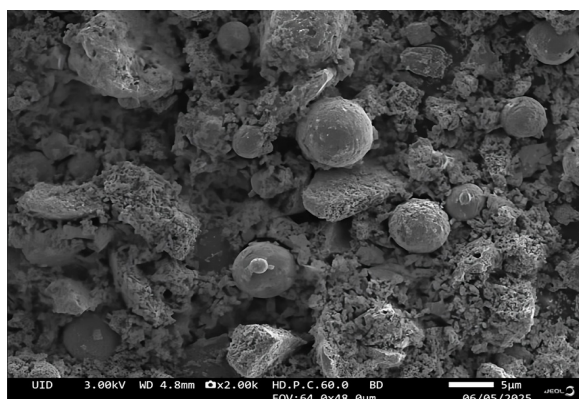
SKU	Configuration / Pack Format
NFPP-4H	20 g, 50 g, 100 g, 1,000 g

5. Intended Applications

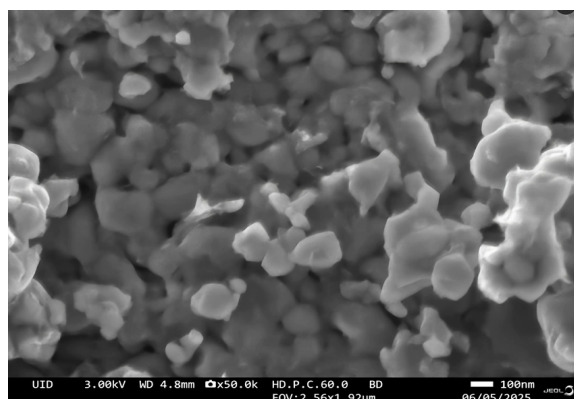
- Sodium-ion battery material evaluation
- Laboratory electrode formulation and coating studies
- Half-cell or full-cell performance screening
- University and R&D laboratory-scale testing

6. Supplier Reference Figures

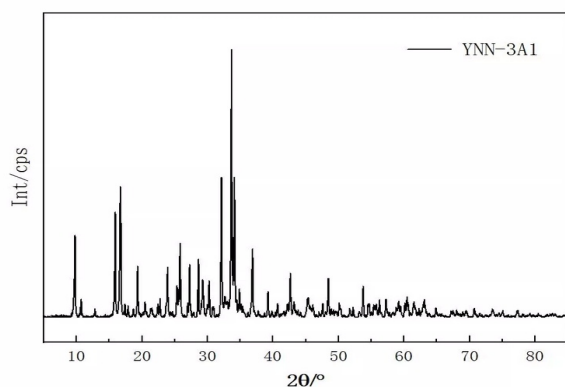
Original supplier axes, labels, magnification and scale information are retained. These figures are reference-only and are not current-batch COA results.



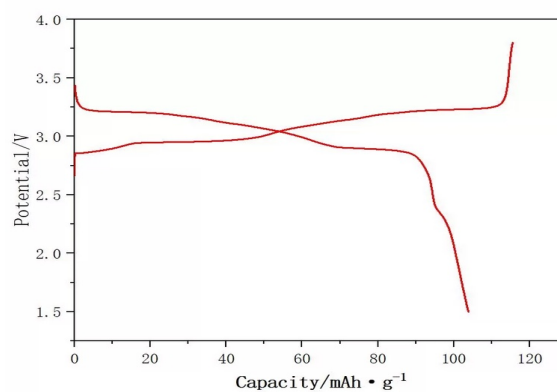
SEM micrograph - 2,000x, 5 µm scale



SEM micrograph - 50,000x, 100 nm scale



Supplier XRD pattern



First charge-discharge profile

7. Storage and Handling

Store in a clean, dry environment at room temperature unless otherwise specified by supplier documentation. Keep tightly sealed and away from moisture, contamination, direct sunlight, and incompatible chemicals.

8. Safety and Regulatory Information

This TDS is not a Safety Data Sheet. For SDS, hazard classification, exposure controls, transport, storage, handling, and disposal information, please contact FluxBatteryHub for available supplier documentation.

9. Notes and Disclaimer

Technical values are provided for product selection and research reference only. Typical, nominal, or reference values are not release specifications and are not current-batch COA results. Final specifications may vary by batch and should be confirmed with FluxBatteryHub before purchase, process validation, or regulated use.