

# $Nb_4AlC_3$ | MAX Phase







## **N** **Niobium** Aluminium Carbide Powder

Catalogue no -

**NS6130-12-001686**

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# Niobium

## Aluminium Carbide Powder

**Nb<sub>4</sub>AlC<sub>3</sub> | MAX Phase**  
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Transition metal ternary compounds, MAX phases, in which M is a transition metal, A is an A group element, and X is C or N, are laminar ceramics owing to their special layered crystal structure with hexagonal symmetry. Nb<sub>4</sub>AlC<sub>3</sub>, investigated the synthesis, microstructure, and physical and mechanical properties of Nb<sub>4</sub>AlC<sub>3</sub> prepared by hot pressing, and found that Nb<sub>4</sub>AlC<sub>3</sub> possessed not only high electrical and thermal conductivities but also excellent high-temperature stiffness. Because of the excellent high-temperature stiffness, Nb<sub>4</sub>AlC<sub>3</sub> is being considered for use in similar fields with Nb-based high-temperature alloys.

## Quick Facts

Product	:	Niobium Aluminium Carbide
Stock No	:	NS6130-12-001686
CAS	:	1015077-01-6
Molecular Formula	:	Nb <sub>4</sub> AlC <sub>3</sub>
Molecular Weight	:	434.63g/mol
Form	:	Powder
Colour	:	Gray to Black



### Packing Sizes:

25Gms, 50Gms, 100Gms  
500Gms & Bulk Orders

## Properties:

- ✓ Excellent high-temperature stiffness
- ✓ Thermal-shock-resistant
- ✓ High electrical and thermal conductivities
- ✓ Flexural strength
- ✓ Fracture toughness

## Applications:

- ✓ Ceramic materials
- ✓ Used in high temperature coating
- ✓ Mxene precursor
- ✓ Conductive self-lubricating ceramics
- ✓ Lithium-ion batteries
- ✓ Super capacitors
- ✓ Electrochemical catalysis.

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