

TECHNICAL DATA SHEET

NANOPLEXUS MAXphase (Ti₃AlC₂)

Product Description

Ti₃AlC₂, MAXphase, is an example of a nanolaminate structured material. It exhibits unique properties that combine characteristics common to metals such as good thermal and electrical conductivity, good machinability, and damage tolerance with ceramic properties such as high elastic modulus, thermal shock resistance, excellent corrosion /oxidation resistance and self-healing capabilities at high temperature.

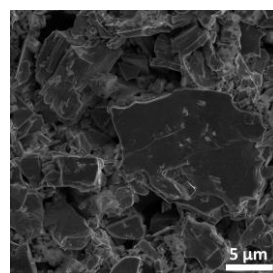
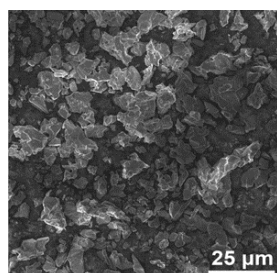
Ti₃AlC₂, MAXphase is among more than 70 MAXphases, and it is the most studied.

Product Name	MAXphase (Ti ₃ AlC ₂)
Product Number	MXPTI3AIC2
CAS Number	196506-01-1

Characteristics

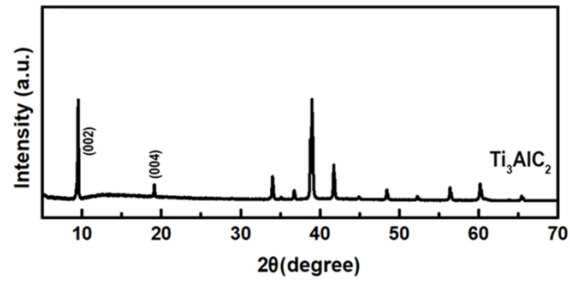
Test	Specification
Appearance (Form)	Powder
Appearance (Colour)	Dark grey to Black
Average Particle Sizes	200 mesh; ≤ 74 μm 300 mesh; ≤ 50 μm 400 mesh; ≤ 38 μm 500 mesh; ≤ 25 μm

MAXphase particles



SEM images of Ti₃AlC₂ flakes

Further MAXphase Characterisation



X-Ray diffraction (XRD) of Ti_3AlC_2 particles

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