NANOSHEL
Creating Miracles in Black

Nickel Titanium Alloy Nanoparticles

Ni:Ti

Stock No:
NS6130-07-700

CAS	:	7440-02-0 / 7440-32-6
Purity	:	99.9%
APS	:	80-150
Color	:	Black
Form	:	Powder

Ti–Ni alloys consisting of equal atomic amounts of Ti and Ni show unique mechanical properties such as shape memory, super elasticity, and dumping. With the shape memory effect, the original shape can be recovered after deformation by heating; with super elasticity, any apparent plastic deformation can be returned to the original shape by releasing the load. Because of these unique properties, the Ti–Ni alloy is used for guide wires, stents, orthodontic arch wires, endodontic reamers and files.

Technical Specification

Molecular Formula	:	Ni:Ti
Density	:	6.45 g/cm³
Melting Point	:	1310 °C

Chemical Composition

Assay	:	99.9%
Nickel	:	50% (±0.5%)
Titanium	:	50% (±0.5%)
Other Metal	:	< 0.1 %

Application:

- ✓ Aerospace and naval applications – Ti-Ni alloys fluid fittings or coupling have are being used in military aircraft and naval craft.
- ✓ Medical Applications - Tweezers for removing foreign objects via small incisions, anchors for tendon fixation and stents for cardiovascular applications
- ✓ Dentistry - Orthodontic wires, which do not need to be retightened and adjusted
- ✓ Safety devices - Safety valves/actuators to control water temperature and fire sprinklers

ISO 9001:2015
CERTIFIED COMPANY

20ZICE4589C | 19ZAZGO1274G | 20ZICE4588M

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