RESONETICS

NITINOL MATERIAL FOR MEDTECH APPLICATIONS

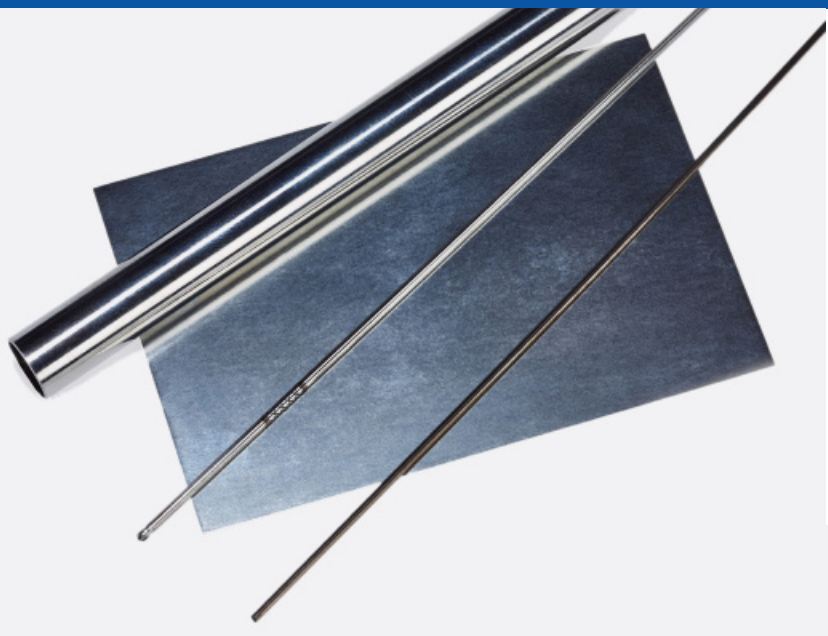
Medical device applications demand the exceptional properties of nitinol alloys and intricate, precision manufacturing techniques.

We have a legacy of melting nitinol, starting with first producing it for the US Naval Ordinance Laboratory in 1966. Our melting facility is completely dedicated to nitinol production and we are committed to supplying all MedTech customers with nitinol mill products, semi-finished raw materials.

We push the boundaries of nitinol technology, offering innovative solutions that empower our partners to achieve new heights of performance and precision.

NITINOL MATERIAL CAPABILITIES

Mill Products
Wire and Strip
Tube
Sheet



NITINOL MATERIAL





Mill Products

Specializing in the commercial volume production of nitinol alloys and boutique melting of novel shape-memory and superelastic alloys, expertise extends to binary, ternary, quaternary, and even more complex compositions, incorporating elements like Co, Cr, Cu, Fe, and Pt. These alloys are meticulously customized to exhibit precise thermo-mechanical responses, aligning with the unique requirements of diverse applications.

Wire and Strip

Our nitinol wire and strip support the most complex component designs requiring intricate geometric shapes.
Through precise adjustments in the wire's chemical composition and thermos-mechanical processing, Resonetics has achieved remarkable flexibility and kink resistance, making it indispensable for a wide range of medical device applications.

Tube

We manufacture nitinol tubes of various sizes and finishes, ranging from hypotubes as small as 0.1524mm OD to precision tubes as large as 12mm in diameter for stents, heart valves, and other implantable applications. We draw these tubes from our in-house melted nitinol bars, ensuring precise control throughout the manufacturing process. Our advanced technology guarantees tight tolerances and high-quality nitinol tubes.

Sheet

Nitinol in sheet form offers a flat substrate that facilitates the volume production of intricate 2-dimensional design components. This product format empowers designers to leverage high volume batch manufacturing processes such as stamping, photochemical machining, EDM, waterjet, and cutting to create expansive and unique structures that may be otherwise unattainable.

		ASTM	Standard	Redox	Enduro	Ingpuls Medical
Nitinol ingot	Max Inclusion Size	39 um	30 um	20 um	12 um	5 um
	Inclusion Area Fraction	2.8%	2.0%	1.2%	0.5%	0.5%

RESONETICS

nitinol@resonetics.com | www.resonetics.com