NIONE

NANOTECHNOLOGY FOR

METALS AND WELDING

nione.tec.br

WE TURN PRODUCTS
INTO THEIR BEST VERSIONS
THROUGH NANOTECHNOLOGY

We are **specialists in nanotechnology** and pioneers in the development, production, and commercialization of solutions using **niobium nanoparticles.**

New technological frontiers

The nanotechnology developed by NIONE enables new technological advancements in traditional and established markets like metals and welding. **We offer innovative solutions that not only redefine the use of niobium but also amplify its benefits at the nanoscale.**

NIONE

A **FRASLE MOBILITY AND RANDONCORP** COMPANY

METAL ALLOYS AND WELDING

nanostructured with
nanoniobium NIONE

The incorporation of niobium nanoparticles in metal alloys and welding induces microstructural and macrostructural changes, particularly in yield strength and microstructure homogenization. These modifications directly impact the dynamic response of components, **contributing to improved fatigue life and overall quality.**

As a result, we enable more modern designs with greater freedom, significant optimization opportunities, and enhanced safety.

Enhancement of properties

Increased mechanical strenght

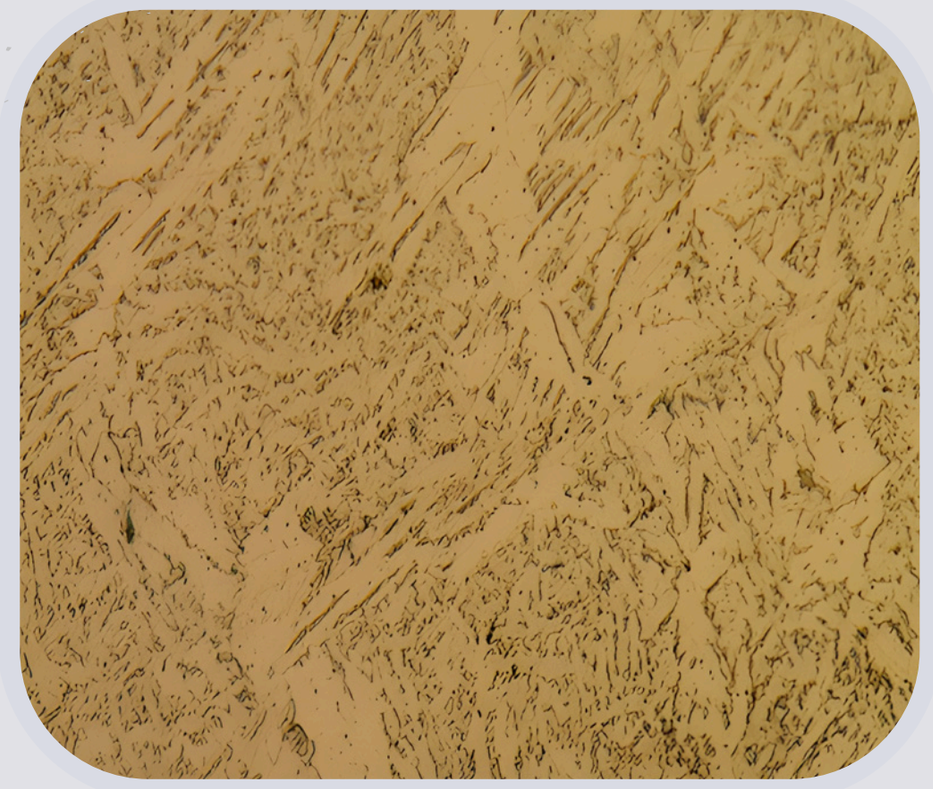
Increased fatigue resistance

Mass reduction

Microstructure homogenization through grain refinement

Technology suitable for ferrous and non-ferrous metals, such as cast iron, steel, and aluminum.

WITH NANONIOBIUM



WITHOUT NANONIOBIUM

Niobium-nanostructured weld microstructure in low-carbon steel

Our products are tailored to meet the needs of each customer, **enhancing benefits and facilitating the incorporation of the technology** into their production process.

Be part of the **nano revolution.**

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