

THERMAL SPRAY METHODS FOR METALLIC AND CERAMIC MATERIALS

Technical Data Sheet
Nickel-based Alloy

HS 5D

Chemical Composition

Element	Nominal Analysis
Chromium	16,00%
Molybdenum	17,00%
Tungsten	4,50%
Iron	5,50%
Nickel	Balance

Coating Hardness: **170 – 200 HV1**

Description:

- A nickel-chromium-molybdenum alloy suitable for arc spraying, distinguished by its excellent resistance in both oxidizing and reducing environments at elevated temperatures.
- The HS 5D alloy also offers good corrosion resistance to acids such as sulfuric acid, phosphoric acid, nitric acid, and acid mixtures of sulfuric and oxidizing acids containing chlorides.
- Notably, the alloy exhibits high resistance to crevice and pitting corrosion at elevated temperatures under both oxidizing and reducing conditions.

Suggested Applications:

- Coatings on components and piping in the chemical and petrochemical industries.

Stand: 04.2025