

**Technical Data Sheet**  
Nickel-based Alloy

# HS 53 VP

**Chemical Composition**

Element	Nominal Analysis
Chromium	Chromium
17.00%	17.00%
Silicon	Silicon

Coating Hardness: **59 – 64 HRC****Description:**

- A nickel-based alloy suitable for plasma spraying, offering excellent wear protection and high hardness due to various hard phase formers. The carbon content is optimized to match the carbide-forming elements, with macroscopic hardness determined by the proportion of chromium carbide and other silicide and boride hard phases.
- The material also provides good resistance to chlorine-induced corrosion processes. However, due to an increased susceptibility to stress corrosion cracking, its use on dynamically loaded components should be evaluated on a case-by-case basis.
- Thermally sprayed coatings of this material can, if required, undergo a specialized heat treatment to create a gas-tight and diffusive (i.e., metallurgical) bond with the base pipe material. Häuser GmbH possesses the expertise to perform this heat treatment without altering the microstructure of the base materia
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**Suggested Applications:**

- Coatings for components subjected to high abrasive wear.

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