

## 15-5PH Stainless Steel (UNS S15500)

## Wipro 3D – 15-5PH Stainless Steel

15-5PH stainless steel is a martensitic precipitation-hardening alloy known for its high strength, hardness, and good corrosion resistance. It is a variant of 17-4 PH.

## Characteristics

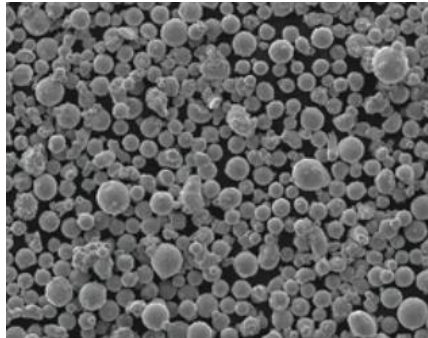
- Higher strength and Hardness.
- Excellent corrosion resistance.
- Good fabricability and weldability.
- Single-step age -hardening for tailored mechanical properties.

## Applications

- Rapid tooling
- Functional components
- Plastic injection molds
- Aerospace and nuclear parts
- Medical and surgical instruments
- Oil, petrochemical and food processing

## Chemical Composition

Table 1: Chemical Composition

Element	Limits	SEM Morphology of Powder
Cr	14-15.5	
Ni	3.5-5.5	
Mo	2.5-4.5	
C	0.07max	
Mn	1.0max	
Cu	2.5-4.5	
Nb	0.15-0.45	
Fe	Balance	

## Business Unit:

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## 15-5PH Stainless Steel (UNS S15500)

## Mechanical Properties

Properties	HT condition Values
Tensile Strength (MPa)	>1200
Yield Strength (MPa)	>1100
Elongation (%)	>10
Hardness (HRC)	>35
Inter Granular Corrosion	Acceptable as per ASTM A262, Grade 316L in Table 1

There are various heat treatment methods for improving strength and/or elongation, hence if the user provides exact requirements, it can be discussed to achieve these properties.

**Disclaimer:** While every reasonable effort has been made to ensure that the information contained in this data sheet is correct, there is no guarantees or warranties (express or implied) concerning the accuracy or completeness of the information provided and expressly excludes all liabilities for any inaccuracies in this document or failure to achieve the stated levels.

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