



KRN ALLOYS PVT. LTD.

PRODUCT DATA SHEET

Grade: KIP 300

Product Type: Water Atomized Iron Powder
(Fine / Industrial Grade)

Category: Atomized Ferrous Powder

1. PRODUCT DESCRIPTION

KIP 300 is a fine water atomized iron powder developed for applications requiring higher surface area, improved reactivity, and enhanced blending characteristics.

The grade is suitable for powder metallurgy, industrial blends, and chemical or metallurgical applications where finer particle size distribution is beneficial.

2. KEY CHARACTERISTICS

Property	Typical Value
Apparent Density	2.6 – 2.9 g/cc
Flow Rate (Hall)	28 – 38 sec/50g
Oxygen (O ₂)	≤ 0.25 %

👉 (Lower AD + higher flow time due to finer PSD — correct behavior)

3. CHEMICAL COMPOSITION (%)

Element	Typical (%)
Fe (Iron)	Balance
C (Carbon)	≤ 0.02
O (Oxygen)	≤ 0.25
Others	Controlled within standard manufacturing limits

4. PHYSICAL PROPERTIES

Property	Description
Particle Shape	Irregular
Production Route	Water Atomized
Surface Area	Higher compared to standard grades
Reactivity	Moderate to high

5. PARTICLE SIZE DISTRIBUTION (PSD)

Fraction	Typical Distribution (%)
+100 mesh (>150 μm)	0 – 1
-100 +200 mesh	5 – 15
-200 +325 mesh	35 – 50
-325 mesh (<45 μm)	30 – 45

* Particle size distribution is designed to provide higher surface area and improved reactivity for specialized applications.

6. TYPICAL APPLICATIONS

- Fine powder metallurgy blends
- Chemical and metallurgical applications
- Industrial powder systems
- Reactive or surface-driven processes

7. ADVANTAGES

- Higher surface area for improved reactivity
- Suitable for fine blending applications
- Good dispersion characteristics
- Adaptable to specialized industrial processes

8. PROCESSING GUIDELINES

- Suitable for blending with fine powders and additives
- Handle under controlled dust conditions
- Recommended storage in dry environment

9. PACKAGING & SUPPLY

- **Standard packing:** 25 kg bags / jumbo bags
- Custom packaging available upon request

10. DISCLAIMER

Values are typical and may vary depending on processing conditions and application requirements. This information is intended as a general guide and does not constitute a strict specification guarantee. Users are advised to evaluate the material for their specific intended use.