



KRN ALLOYS PVT. LTD.

PRODUCT DATA SHEET

Grade: KFS 15

Product Type: Water Atomized Ferrosilicon Powder
(Dense Media Separation Grade)
Category: Ferro Alloy Powder

1. PRODUCT DESCRIPTION

KFS 15 is a water atomized ferrosilicon powder specifically developed for dense media separation (DMS) applications requiring controlled density, stable suspension behavior, and consistent particle size distribution.

The grade provides improved flow characteristics and uniform particle distribution compared to conventional crushed ferro alloys, ensuring reliable separation performance.

2. KEY CHARACTERISTICS

| Property | Typical Value |
|------------------|----------------|
| Silicon (Si) | ~15 % |
| Apparent Density | 3.0 – 3.5 g/cc |
| Moisture | ≤ 0.10 % |

4. PHYSICAL PROPERTIES

| Property | Description |
|---------------------|---------------------------|
| Particle Shape | Irregular to semi-rounded |
| Production Route | Water atomized alloy |
| Flow Behavior | Improved |
| Suspension Behavior | Stable |

6. TYPICAL APPLICATIONS

- Dense media separation (coal processing)
- Mineral beneficiation systems
- Industrial separation processes

8. PROCESSING GUIDELINES

- Suitable for dense media slurry preparation
- Maintain proper slurry density and circulation
- Use controlled recovery systems

3. CHEMICAL COMPOSITION (%)

| Element | Typical (%) |
|--------------|-------------------------------------------------|
| Si (Silicon) | ~15 |
| Fe (Iron) | Balance |
| Others | Controlled within standard manufacturing limits |

5. PARTICLE SIZE DISTRIBUTION (PSD)

| Fraction | Typical Distribution (%) |
|--------------------|--------------------------|
| +300 mesh (>50 µm) | 35 – 60 |
| -300 mesh (<50 µm) | 40 – 65 |

** PSD is controlled to maintain stable suspension, uniform distribution, and efficient separation performance in DMS systems.*

7. ADVANTAGES

- Improved flow compared to crushed ferro alloys
- Stable suspension characteristics
- Consistent separation efficiency
- Reduced segregation and material loss

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.