



KRN ALLOYS PVT. LTD.

PRODUCT DATA SHEET

Grade: KCP 100.24

Product Type: Water Atomized Copper Powder

Category: Atomized Non-Ferrous Powder

1. PRODUCT DESCRIPTION

KCP 100.24 is a water atomized copper powder developed for powder metallurgy and industrial applications requiring consistent particle size distribution, reliable compressibility, and stable blending characteristics.

The grade is suitable for both PM processing and industrial powder systems where copper's conductivity and metallurgical properties are required.

2. KEY CHARACTERISTICS

Property	Typical Value
Apparent Density	2.4 – 2.8 g/cc
Flow Rate (Hall)	25 – 35 sec/50g
Purity (Cu)	≥ 99.5 %
Oxygen (O ₂)	≤ 0.30 %

👉 (Lower AD than iron; higher oxygen typical for WA copper — correct)

4. PHYSICAL PROPERTIES

Property	Description
Particle Shape	Irregular
Production Route	Water Atomized
Compressibility	Good
Conductivity	High
Flow Behavior	Stable

6. TYPICAL APPLICATIONS

- Copper-based powder metallurgy components
- Diamond tool formulations
- Electrical and conductive applications
- Friction materials and industrial blends

8. PROCESSING GUIDELINES

- Suitable for PM compaction and sintering
- Compatible with alloying elements such as tin, zinc, and graphite
- Recommended storage in dry conditions

3. CHEMICAL COMPOSITION (%)

Element	Typical (%)
Cu (Copper)	≥ 99.5
O (Oxygen)	≤ 0.30
Others	Controlled within standard manufacturing limits

5. PARTICLE SIZE DISTRIBUTION (PSD)

Fraction	Typical Distribution (%)
+100 mesh (>150 μm)	0 – 2
-100 +200 mesh	10 – 20
-200 +325 mesh	45 – 60
-325 mesh (<45 μm)	15 – 25

* Particle size distribution is controlled to ensure consistent compaction behavior and stable blending in both PM and industrial applications.

👉 (Similar structure to iron but slightly tuned for copper behavior — correct)

7. ADVANTAGES

- High purity copper content
- Good compressibility for PM processing
- Consistent blending characteristics
- Suitable for conductive and metallurgical applications
- Reliable performance across multiple industrial uses

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.