



1. PRODUCT DESCRIPTION

KLP 325 is an ultra-fine, air-atomized lead powder strictly engineered for high-performance applications where extreme surface area and homogeneous dispersion are critical.

The grade is the industry benchmark for blending into epoxies and resins for radiation shielding, specialized heavy-duty thread lubricants, and active paste compounds in battery manufacturing.

2. KEY CHARACTERISTICS

Property	Typical Value
Purity (Pb)	≥ 99.5 %
Apparent Density	4.0 – 5.0 g/cc
Flow Rate (Hall)	Non-Free Flowing
Melting Point	~327°C

4. PHYSICAL PROPERTIES

Property	Description
Particle Shape	Irregular / Spherical
Production Route	Air atomized
Surface Area	High
Dispersion	Excellent in resins/pastes

6. TYPICAL APPLICATIONS

- **Radiation Shielding:** X-ray and Gamma-ray blocking epoxies, paints, and garments.
- Specialized thread compounds and anti-seize lubricants.
- Active mass paste for lead-acid battery manufacturing.
- Advanced conductive coatings and composites.

8. SAFETY & PROCESSING GUIDELINES

- **Extreme Caution:** Ultra-fine lead dust is highly hazardous if inhaled or ingested.
- Handle strictly inside closed systems or with HEPA-filtered local exhaust ventilation.
- Mandatory use of high-efficiency particulate respirators (N100/P100) and strict hygiene protocols.

3. CHEMICAL COMPOSITION (%)

Element	Typical (%)
Pb (Lead)	≥ 99.5
Others	Controlled within standard manufacturing limits

5. PARTICLE SIZE DISTRIBUTION (PSD)

Fraction	Typical Distribution (%)
+200 mesh (>75 µm)	0 – 2
-200 +325 mesh	5 – 18
-325 mesh (<45 µm)	≥ 80
-400 mesh	Predominant

** Rigorously sieved to ensure a minimum of 80% passing through 325 mesh, maximizing attenuation and reaction area.*

7. ADVANTAGES

- Superior radiation attenuation capability per mm³.
- Exceptional homogeneous dispersion in liquid binders, resins, and polymers.
- Extremely high surface area for rapid chemical reactivity.
- Prevents galling under extreme pressure in lubricants.

9. PACKAGING & SUPPLY

- **Standard packing:** 25 kg sealed UN-rated drums to prevent dust leakage.
- Double-lined, heavy-duty inner polyliners are standard.

10. DISCLAIMER

Values are typical and may vary depending on processing conditions. 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 and observe all mandatory safety and environmental protocols for toxic heavy metal dust.