

Ultra-High Power Graphite Electrode

Ultra-high power graphite electrodes are designed for metallurgical and mining applications. They are manufactured for optimal performance in electric arc furnaces.



Product Overview

Ultra-High Power Graphite Electrode

These Ultra-High Power (UHP) graphite electrodes are specifically engineered for demanding metallurgical and mining applications. Manufactured from premium-grade needle coke and pitch through a rigorous graphitization process, they offer superior electrical conductivity and exceptional resistance to thermal shock. Designed to optimize performance in electric arc furnaces (EAFs), these electrodes ensure high efficiency and reliable steelmaking operations.

Technical Specifications

Material Performance Table

Property	Electrode (300-500)	Electrode (550-700)
Electrical Resistivity ($\mu\Omega$)	4.8–6.0	4.5–6.0
Bending Strength (Mpa)	9.0–15.0	10.0–15.0
Young's Modulus (Gpa)	9.0–13.0	10.0–14.0
Bulk Density (g/cm ³)	1.65–1.75	1.67–1.77
CET (x 10 ³ /v)	1.1–1.5	1.1–1.4

Nipple Performance Metrics

Property	Nipple (for 300-500)	Nipple (for 550-700)
Electrical Resistivity ($\mu\Omega$)	3.3–4.5	3.0–4.2
Bending Strength (Mpa)	20.0–28.0	22.0–30.0
Young's Modulus (Gpa)	12.0–20.0	14.0–22.0
Bulk Density (g/cm ³)	1.75–1.82	1.78–1.85
CET (x 10 ³ /v)	0.8–1.3	0.81–1.2

Operational Standards

Available Diameters

- 300
- 350
- 400
- 450
- 500
- 550
- 600
- 700

Ash Content

0.3 %