



SHOWA DENKO

Graphite Electrodes

Quality • Service • Reliability

Assuring Reliable Performance



All activities at SDKC are keyed to provide our customers with the best available UHP electrode value and reliable on-furnace performance.

Precision blending of raw material formulations and application of thermal processing furnishes desired end-product characteristics in every electrode we manufacture. These include superior electrical conductivity, high-resistance to thermal shock damage and low oxidation at elevated temperatures. All are geared to continually lower electrode consumption and keep electric arc furnace production competitive in the global economy.

TYPICAL PHYSICAL PROPERTIES

Properties	Diameter, in.	18-20	22-24	26-30
Bulk Density	g/cc	1.69-1.76	1.68-1.76	1.68-1.76
Real Density	g/cc	2.22-2.25	2.22-2.25	2.22-2.25
Porosity	%	21-25	21-25	21-25
Specific Resistivity	10 ⁻⁵ ohm in.	17.0-21.5	17.0-21.5	17.0-21.5
Bending Strength	psi	min	1200	1150
		max	1500	1450
Youngs Modulus	psi x 10 ⁻⁶	1.1-1.5	1.0-1.4	1.0-1.3
Coefficient of Thermal Expansion*	10 ⁻⁶ /°C	1.25-1.65	1.25-1.65	1.25-1.65
Ash Content	%	0.1-0.6	0.1-0.6	0.1-0.6

* On axis Coefficient of Thermal Expansion (100-600°C Secant CTE)

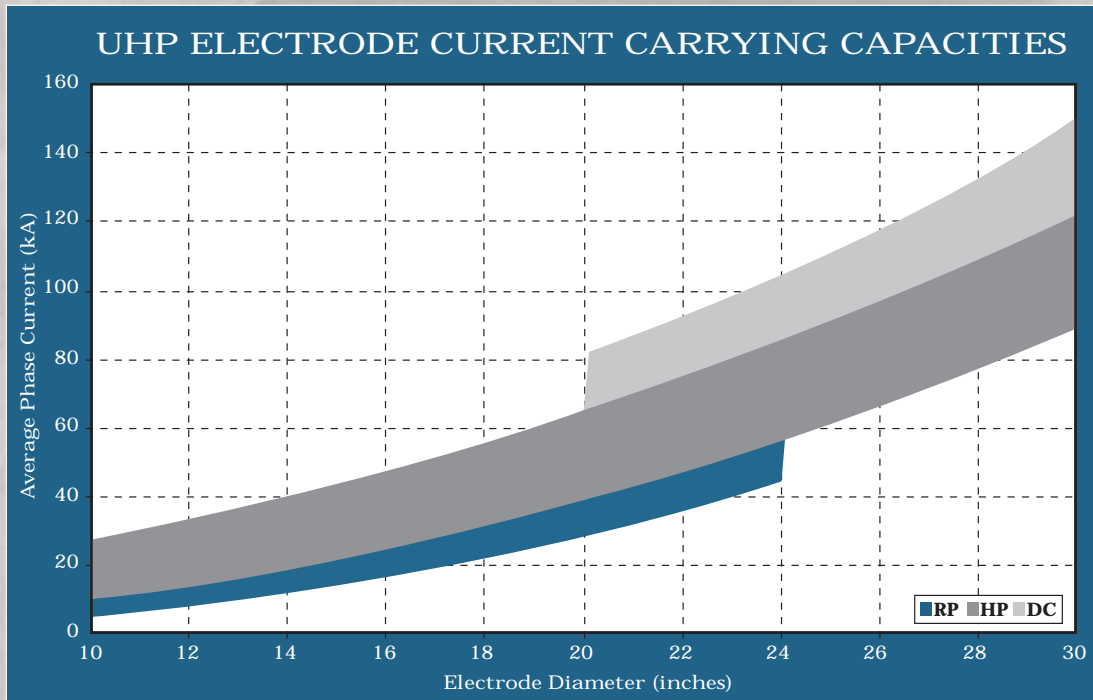
Showa Denko Carbon Inc.

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To further assure optimum electrode performance in the field, close attention is given in packing electrodes to provide safe shipment to customer sites. Electrodes are placed on



scalloped, oak stringers and banded with steel straps to ensure delivery of undamaged material, which can be stored and subsequently handled safely. Pallets are designed for easy handling by overhead crane and by forklift. Non-containerized exports receive additional crating to resist damage during ocean transit.

At SDKC, we pay close attention to every aspect of production and shipping. While time consuming, it is your assurance that SDKC UHP electrodes will provide reliable on-furnace performance.

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