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Brief Introduction

Shanghai Cunren Carbon Co., Ltd is a manufacturing enterprise established by one former engineers from Morganite in 1980.
We are now becoming the largest carbon product maker with an annual manufacture capacity of 140 tons of electro graphite block and 12 million of carbon brushes,all with accredited quality.98% of our Nature graphite,electro graphite,copper graphite material have replaced many famouse carbon group's product. Positioned the upstream in the whole industrial chain, we've got a really big list of the customers both inland and abroad, we are prepare to work with you and assist you in new project with our engineering know-how.

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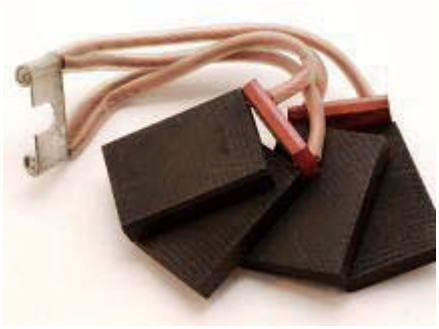
MAIN CLASS OF CARBON BRUSH MATERIAL

Natural graphite

The natural graphite is main raw material of this class of brushes.Here,pitch and resin are used binders.they are baked at about 1000℃.

This class of brushes are provided with better lubricating and current-collecting performance.The natural graphite brushes are respectively used with the slip rings of small and medium size DC motor and high speed turbo-generators under steady applications.



Electro graphite

This class of brushes consist of various kinds of carbon powders such as carbon black,coke,graphite and so on.Ther must undergo high temperature treatment at about 2500℃ to make all kinds of carbonic material convert to a micro-crystalline form of artificial graphite.Hence E 1 is electro graphite base,E 2 with coke base and E 3 with carbon black base.

This class of brushes have excellent characteristic of commutating and self-lubricating,widely applied to all kinds of AC and DC motors with the advantage of long service life and less wear ability of the commutators.

Metal graphite

This main raw material used for this class of brushes are electrolytic copper powder and graphite.According to the needs of users,powders of silver,lead and other metals may also be employed.

This class of brushes applicable to low voltage electrical machines with heavy load and ordinary requirements of commutation.Generally,the peripheral speed shoudl not exceed 30 m/s.

Electro Grahpite

Grade	Resistivity (Ω μ m)	Rockwell hardness (HR10/)	Contact Voltage Drop (v)	Coef of Friction	Current density	Max Surface Speed (m/s)	Pressure in using (kPa)	Application
E17	7.8-18.2	103 (196)	2.7	0.25	12	70	14.7-19.6	slip rings of the high speed turbo-generators and DC machines of small and medium size.
E21	21-35	82 (980)	2.4	0.25	10	40	19.6-39.2	generators on automobile and traction motors with mechanical vibration
E25	10.5-19.5	82 (980)	2.5	0.25	12	45	19.6-24.5	exciters of turbogenerators and DC machines with shock load
E30	28-52	68 (980)	2.6	0.25	10	40	19.6-39.2	120-440v DC machines automobile generators and traction motors
E33	40-74	83 (980)	2.8	0.25	12	50	19.6-39.2	traction motors and main generators for locomotives high speed excites for turbo-generators,rolling mill motors and main generators,AC commutator motors and other DC mortors with some difficulties of commutation.
E33N	41-75	83 (980)	2.8	0.2	12	60	19.6-39.2	
E33F	40-74	90 (980)	2.7	0.2	12	50	19.6-39.2	
E36N	42-78	99 (588)	2.9	0.25	12	50	19.6-39.2	

Metal Grahpite

Grade Metal%	Resistivity (Ω μ m)	Rockwell hardness (HR10/)	Contact Voltage Drop (v)	Coef of Friction	Current density	Max Surface Speed (m/s)	Pressure in using (kPa)	Application
CG94 94% Cu	0.03-0.09	59-105 (392)	<0.4	0.25	20	20	17.67-22.5	contacts
CG82 82% Cu	0.045-0.135	30-92 (392)	0.18-0.42	0.2	20	20	17.67-22.5	with low voltage and slip rings of AC commutator machines
CG72 72% Cu	0.24-0.96	37-105 (588)	0.61-1.6	<0.2	15	20	19.6-24.5	DC machines up to 40V,automobile starters and exciting slip rings of asynchronous machines
CG60 60% Cu	1.0-4.0	66-113 (588)	0.78-1.82	0.25	15	35	19.6-24.5	automobile starters and exciting slip rings of synchronous machines
CG50 50% Cu	1.4-5.6	63-103 (588)	0.83-2.18	0.25	15	25	14.7-19.6	DC genertators up to 60V and DC welding machine
CG25 25% Cu	4.4-13.2	30-90 (588)	1.17-2.43	0.25	12	20	14.7-19.6	DC machines up to 80V,small traction motors and slip rings of asynchronous motors
SG50 50% Ag	2.40	89 (588)	1.2	0.3	15	20	14.7-19.6	DC measure speed electrical machines,AC and DC miniature electrical machines
SG70 70% Ag	0.41	84 (588)	0.73	0.28	15	20	14.7-19.6	
SG90 90% Ag	0.07	82 (588)	0.2	0.25	20	15	14.7-19.6	DC measure speed electrical machines,AC and DC miniature electrical machines

Nature Graphite

Grade	Resistivity (Ω μ m)	Rockwell hardness (HR10/)	Contact Voltage Drop (v)	Coef of Friction	Current density	Max Surface Speed (m/s)	Pressure in using (kPa)	Application
NG634	17-25	46-77 (196)	<2.5 per brush	0.27	10	70	14.7-19.6	especially suitable for slip rings of large turbogenerators

Resin-Bonded

Grade	Resistivity (Ω μ m)	Rockwell hardness (HR10/)	Contact Voltage Drop (v)	Coef of Friction	Current density	Max Surface Speed (m/s)	Pressure in using (kPa)	Application
R015	329-611	76-120 (196)	3.36-6.24	0.2	8	30	19.6-3142	power tools
R211	147-273	56-84 (588)	3.6-5.4	0.2	8	35	24.5-34.5	DC or AC commutator machines