

普克贝材料

Pu Ke Bei Material



GRAPHITE ELECTRODE

For Arc Furnaces And Submerged Arc Furnaces



Typical Properties for Electrode

Properties	Metric Unit	Grade		
		RP	HP	UHP
Specific electrical resistance	$\mu\Omega\cdot m$	7,0-10,0	5,5-6,5	4,5-5,5
Bending strength	(Mpa)	7,5-9,5	10,5-15,0	10,0-15,0
Elastic Modulus	GPa	6,0-9,0	9,0-12,0	9,0-12,0
Bulk density	g/cm^3	1,55-1,65	1,64-1,72	1,66-1,74
C.T.E (100-600°C)	$10^{-6}/^{\circ}C$	2,0-2,4	1,9-2,3	1,1-1,5
ASH	%	<0.3	<0.2	<0.2



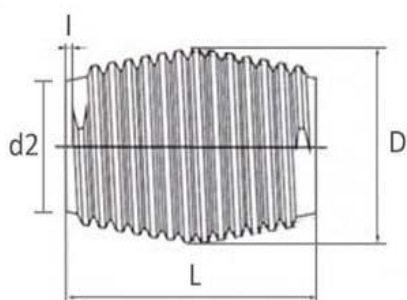
Electrode Dimensions*

Electrode Diameter (mm)				Electrode Length (mm)		
Normal	(inch)	Max	Min	Nominal Length	Tolerances	Short Dimension
100	4	108	100	1800/2600	±150	-300
150	6	158	151	1800		
200	8	208	200	1500/1800/ 2100		
250	10	258	251			
300	12	308	302			
350	14	358	352			
400	16	409	400	1800/2100 /2400		
450	18	460	451			
500	20	511	502	2100/2400 /2700		
550	22	562	553			
600	24	613	604			
650	26	663	657	2400/2700		
700	28	714	705			
750	30			2700		

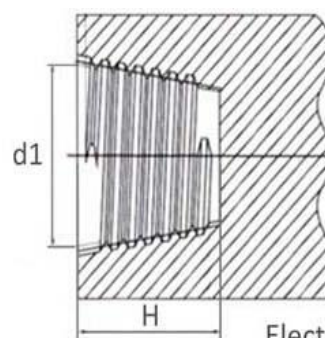
*Non-typical electrodes sizes can be produced upon request **

Typical Properties For Pins

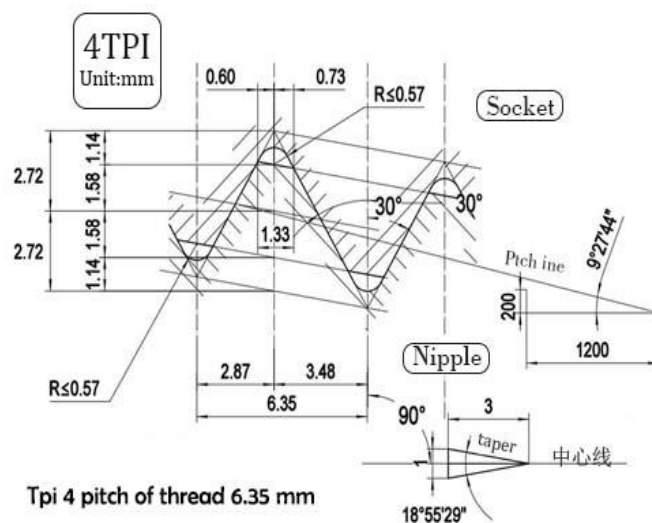
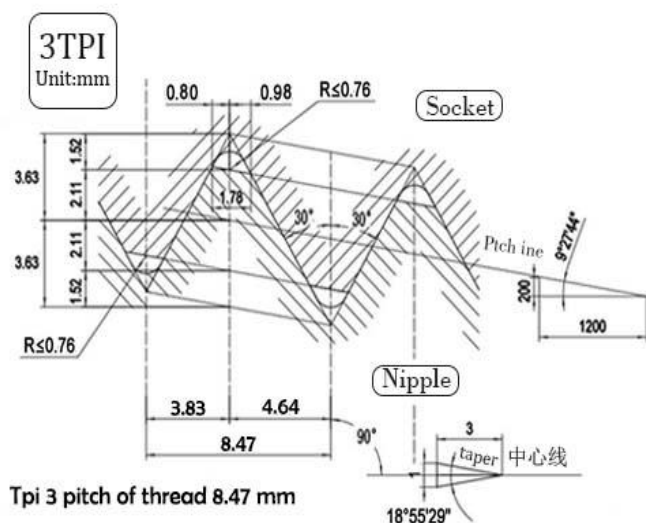
Properties	Metric Units	Grade		
		RP	HP	UHP
Specific electrical resistance	$\mu\Omega\cdot m$	4.0-5.5	3.5-4.5	3.0-4.0
Bending strength	MPa	17-22	18-25	21-30
Elastic modulus	GPa	12-16	13-18	15-20
Bulk density	g/cm^3	1.74-1.78	1.75-1.8	1.77-1.85
C.T.E (100-600°C)	$10^{-6}/^{\circ}C$	1.5-2.0	1.3-1.6	0.9-1.3
ASH	%	0.3	0.2	0.2



Nipple size



Electrode hole size



Pin Dimensions - Tpi 4 pitch of thread 6.35 mm

Nominal Diameter		IEC Code	Sizes of Nipple(mm)			Sizes of Socket(mm)			Thread
mm	inch		D IT (-0.5-0)	L IT (-1-0)	d2 IT (-5-0)	1	d1 IT (0-0.5)	H IT (0-7)	mm
200	8	122T4N	122.24	177.80	80.00	<7	115.92	94.90	6.35
250	10	152T4N	152.40	190.50	108.00		146.08	101.30	
300	12	177T4N	177.80	215.90	129.20		171.48	114.00	
350	14	203T4N	203.20	254.00	148.20		196.88	133.00	
400	16	222T4N	222.25	304.80	158.80		215.93	158.40	
		222T4L	222.25	355.60	150.00		215.93	183.80	
450	18	241T4N	241.30	304.80	177.90		234.98	158.40	
		241T4L	241.30	355.60	169.42		234.98	183.80	
500	20	269T4N	269.88	355.60	198.00		263.56	183.80	
		269T4L	269.88	457.20	181.08		263.56	234.60	
550	22	298T4N	298.45	355.60	226.58		292.13	183.80	
		298T4L	298.45	457.20	209.65		292.13	234.60	
600	24	317T4N	317.50	355.60	245.63		311.18	183.80	
		317T4L	317.50	457.20	228.70		311.18	234.60	
700	28	374T4N	374.65	457.20	285.84		368.33	234.60	
		374T4L	374.65	558.80	268.91		368.33	285.40	

Pin Dimensions - Tpi 3 pitch of thread 8.47 mm

Nominal Diameter		IEC Code	Sizes of Nipple(mm)				Sizes of Socket(mm)		Thread
mm	inch		D IT (-0.5-0)	L IT (-1-0)	d2 IT (-5-0)	1	d1 IT (0-0.5)	H IT (0-7)	mm
250	10	155T3N	155.57	220.00	103.80	<10	147.14	116.00	8.47
300	12	177T3N	177.16	270.90	116.90		168.73	141.50	
350	14	215T3N	215.90	304.80	150.00		207.47	158.40	
400	16	241T3N	241.30	338.70	169.80		232.87	175.30	
450	18	273T3N	273.05	355.60	198.70		264.62	183.80	
500	20	298T3N	298.45	372.60	221.30		290.02	192.20	



Product Current Carrying Capacity Table

Nominal Diameter	RP		HP		UHP	
	A	A/Cm ²	A	A/Cm ²	A	A/Cm ²
200	5000~6900	15~21	5500~9000	18~25		
250	7000~10000	14~20	8000~12000	18~25		
300	10000~13000	14~18	12000~16000	17~24	15000~22000	20~30
350	13500~18000	14~18	16000~23000	17~24	20000~30000	20~30
400	18000~23500	14~18	20000~29000	16~23	25000~40000	19~30
450	22000~27000	13~17	24000~39000	15~23	32000~45000	19~27
500	25000~32000	13~16	30000~47000	15~23	38000~55000	18~27
550	31000~41000	13~16	35000~56000	15~22	45000~65000	18~27
600	37000~45000	13~16	41000~64000	15~22	52000~75000	18~26
650	44000~49000	12~15	53000~74000	15~20	65000~85000	17~24
700	48000~59000	12~15	57000~80000	15~20	68000~95000	17~24



Electrode Diameter (mm)	IN	N·m
Φ250	10	450
Φ300	12	600
Φ350	14	820
Φ400	16	1000
Φ450	18	1600
Φ500	20	2600
Φ550	22	3600
Φ600	24	4200
Φ650	26	5000
Φ700	28	6000
Φ750	30	7500

*Non-typical electrodes sizes can be produced upon request **



QUALITY MANAGEMENT SYSTEM CERTIFICATE

This is to Certify that the QUALITY MANAGEMENT SYSTEM of

Beijing Pukebei New Material Co.,Ltd

**Registered Address: Room 61466,Room601,Floor 6,Building 4,Yard 1,Yuxi First Street,Tong
zhou District,Beijing**

**Audit Address: Room 61466,Room601,Floor 6,Building 4,Yard 1,Yuxi First Street,Tong
zhou District,Beijing**

has been assessed by DCI Certification Service
and found to comply with

GB/T 19001-2016 idt ISO9001:2015

for the

Processing and sales of graphite products (graphite electrodes)

Certificate Number: 200636
Unified Social Credit Code: 91110112MA028JQE4B
Initial Certification: 28 Aug. 2021
Issue/Reissue Date: 28 Aug. 2021
Certificate Expiry: 28 Aug. 2022


Certification Manager



Please scan QR code to check
the certificate validity and
Acquire necessary certification
public documents.

Recertification Date: 28 Aug. 2024

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4F, Building 26, Lane 2777 East Jinxiu Road, Polit Free Trade Zone, Shanghai, China
Email: info@dci-global.com.cn