

Low-Carbon Steel Wire

Chemical Composition

CHEMICAL ANALYSIS (HEAT ANALYSIS) EN 16120-2

Type of steel		Heat analysis									
Designation											
Symbolic	Numerical	% C	% Si	% Mn	Max. % P	Max. % S	Max. % Cr	Max. % Ni	Max. % Mo	Max. Cu	Max. % Al
C4D	1.0300	≤ 0.06	≤ 0.30	0.30 - 0.60	0.035	0.035	0.20	0.25	0.05	0.30	0.01
C7D	1.0313	0.05 - 0.09	≤ 0.30	0.30 - 0.60	0.035	0.035	0.20	0.25	0.05	0.30	0.01
C9D	1.0304	≤ 0.10	≤ 0.30	0.30 - 0.60	0.035	0.035	0.20	0.25	0.05	0.30	0.01
C15D	1.0413	0.12 - 0.17	≤ 0.30	0.30 - 0.60	0.035	0.035	0.20	0.25	0.05	0.30	0.01

Equivalent

Designation		US	JAPAN	CHINA
Symbolic	Numerical	AISI/SAE	JIS	GB
C4D	1.0300			
C7D	1.0313	1008		
C9D	1.0304			
C15D	1.0413			

Mechanical properties

WITHOUT COATING:

Material	Range	Approx. Rm (N/mm ²)
Annealed	-	330 - 400
N/A	-	under agreement
Hard Drawn (Grey)	0.8 -1.5	750-1100
	1.51 - 3.00	650-950
	3.01 - 4.50	600-850
	>4.51	500-700

WITH COATING:

Material	Range	Approx. Rm (N/mm ²)
Annealed Galvanised	-	400 - 450
Hard Galvanised (Grey)	-	700 - 850

Finishes

We can supply the following types of coatings:

Galvanised - Reinforced galvanised - ZA - Reinforced ZA

COATING DENSITY EN 10244

Diameter d mm	Coating density EN 10244		
	A	B	C
	g/m^2	g/m^2	g/m^2
$0.15 \leq d < 0.20$	-	15	-
$0.20 \leq d < 0.25$	30	20	20
$0.25 \leq d < 0.32$	45	30	25
$0.32 \leq d < 0.40$	60	30	25
$0.40 \leq d < 0.50$	85	40	30
$0.50 \leq d < 0.60$	100	50	35
$0.60 \leq d < 0.70$	115	60	40
$0.70 \leq d < 0.80$	130	60	45
$0.80 \leq d < 0.90$	145	70	50
$0.90 \leq d < 1.00$	155	70	55
$1.00 \leq d < 1.20$	165	80	60
$1.20 \leq d < 1.40$	180	90	65
$1.40 \leq d < 1.65$	195	100	70
$1.65 \leq d < 1.85$	205	100	75
$1.85 \leq d < 2.15$	215	115	80
$2.15 \leq d < 2.50$	230	125	85
$2.50 \leq d < 2.80$	245	125	95
$2.80 \leq d < 3.20$	255	135	100
$3.20 \leq d < 3.80$	265	135	105

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	Coating density EN 10244		
	A	B	C
Diameter d mm	g/m^2	g/m^2	g/m^2
$3.80 \leq d < 4.40$	275	135	110
$4.40 \leq d < 5.20$	280	150	110
$5.20 \leq d < 8.20$	290	-	110
$8.20 \leq d < 10.00$	300	-	110

Guidance information.

Note: Can be supplied in copper plating

Tolerances

TOLERANCES DIN 177

Nominal diameter tolerances

Nominal diameter d mm	Grey, Galvanised, Electro-zinc plated, Z/A
$0.10 \leq d < 0.25$	± 0.01
$0.25 \leq d < 0.40$	± 0.015
$0.40 \leq d < 0.63$	± 0.02
$0.63 \leq d < 1.00$	± 0.03
$1.00 \leq d < 1.60$	± 0.04
$1.60 \leq d < 2.50$	± 0.06
$2.50 \leq d < 4.00$	± 0.08
$4.00 \leq d < 6.30$	± 0.10
$6.30 \leq d < 10.00$	± 0.15
$10.00 \leq d < 16.00$	± 0.20
$16.00 \leq d \leq 20.00$	± 0.25

Note: Can be supplied in copper plating

WHEN SUPPLIED IN RODS. STRAIGHTENED WIRE:

Nominal diameter d mm	Length tolerance mm.	
	Minimum length	Maximum length
$0.65 \leq d < 0.80$	50	2000
$0.80 \leq d < 2.01$	30	2000
$2.01 \leq d < 3.01$	30	4000
$3.01 \leq d < 4.35$	30	4000
$4.35 \leq d < 6.01$	30	4350
$6.01 \leq d < 10.50$	250	4350

Approximate data for information purposes

STANDARD LENGTH TOLERANCES

NOMINAL LENGTH	TOLERANCE
$L \leq 1000$ mm.	+/- 1 mm.
$1000 < L \leq 4000$	- 0mm. / +3 mm.

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