AlSi-CR

Aluminum Wire

Mechanical Properties

AlSi soft

Diameter*	(µm)	18	20	25	32	38	50	75
Elongation	(%)	>1	>1	>1	>1	>1	>1	>1
Breaking Load**	(cN)	5 – 7	7 – 10	12 – 15	17 – 21	24 – 30	38 – 46	90 – 110
Part number	100m	TBD	TBD	5164626	5164662	5164668	5164674	5164680
	500m	TBD	TBD	5164627	5164663	5164669	5164675	5164681
Spool Color		Green						
Tape Start Color		Green						
Tape End Color		Black						

AlSi medium

Diameter*	(µm)	18	20	25	32	38	50	75
Elongation	(%)	>1	>1	>1	>1	>1	>1	>1
Breaking Load**	(cN)	7 – 10	10 – 12	15 – 17	20 – 24	28 – 34	45 – 55	110 – 120
Part number	100m	TBD	TBD	5164628	5164664	5164670	5164676	5164682
	500m	TBD	TBD	5164629	5164665	5164671	5164677	5164683
Spool Color		Blue						
Tape Start Color		Green						
Tape End Color		Black						

AlSi hard

Diameter*	(µm)	25	32	38	50	75
Elongation	(%)	>1	>1	>1	>1	>1
Breaking Load**	(cN)	17 – 19	23 – 27	32 – 38	55 – 65	120 – 140
Part number	100m	5164630	5164666	5164672	5164678	5164684
	500m	5164631	5164667	5164673	5164679	5164685
Spool Color		Red				
Tape Start Color		Green				
Tape End Color		Black				

*1mil ≈ 25µm; **100cN ≈ 100g
Testing criteria for breaking load and elongation:
Testing velocity: 10mm / min – Test length of sample: 100 mm
Technical parameters: The above parameters are standard values. Customized specification and intermediate dimensions possible after clarification with Heraeus technical experts.

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Aluminum Wire

Material Characteristics	
Physical Properties	
Density	2.7 g/cm^3
Melting point	655 °C
Modulus of rigidity	27 kN/mm^2
Linear expansion coefficient (20 – 30 °C)	25 (10^{-6}*K^{-1})
Thermal conductivity at 20 °C	195 W/m*K
Electrical resistivity at 20 °C	3.0 µΩ*cm
Electrical conductivity at 20 °C	57 % IACS
Temp. coefficient of elec. resistance (0 – 100 °C)	3.95 (10^{-3}*K^{-1})
Chemical Properties	
Al purity (base material)	~99,9995%
Si content	0,95 -1,05%
Standard element limits	Ni 40-60 wt.-ppm
Max. content impurity elements	max. 50 wt.-ppm
Other Guidelines	
Floor life	1 month
Shelf life	6 months

Americas
Phone +1 610 825 6050
electronics.americas@heraeus.com

Asia Pacific
Phone +65 6571 7649
electronics.apac@heraeus.com

China
Phone +86 53 5815 9601
electronics.china@heraeus.com

Europe, Middle East and Africa
Phone +49 6181 35 4370
electronics.emea@heraeus.com