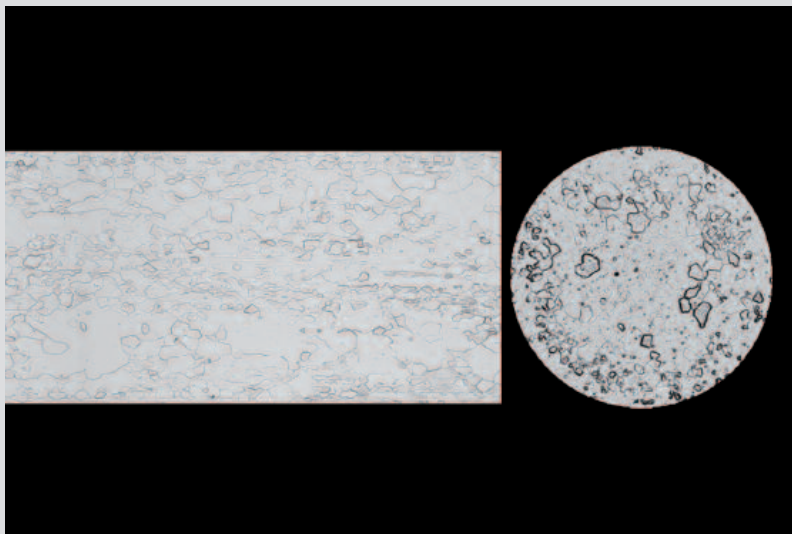


Al-H11

Standard Aluminum Wire for Automotive and Power Applications



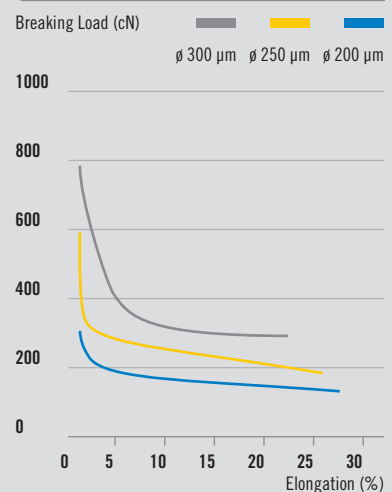
Al-H11 wires consist of high purity aluminum with selected addition elements homogeneously distributed in defined concentrations. The Al-H11 wire fulfils the increasing requirements made on the reliability of bonded connections in automobile and power electronics.

- Areas of application
- Automotive components
 - Power components
 - Hybrid components
 - Transistors / thyristors

Al-H11 Benefits

- Defined softness
- Good bending fatigue properties
- Excellent loop stability
- Outstanding bonding properties

Breaking Load vs. Elongation



Recommended Technical Data of Al-H11

Diameter	Microns (μ m)	125	150	175	200	250	300	375	400	450	500
	Mils	5	6	7	8	10	12	15	16	18	20
Elongation	%	> 1	> 1	> 1	> 1	> 1	> 5	> 5	> 5	> 5	> 5
Breaking Load	cN	50 – 90	80 – 120	100 – 160	150 – 230	200 – 300	280 – 400	450 – 650	500 – 700	650 – 850	850 – 1100

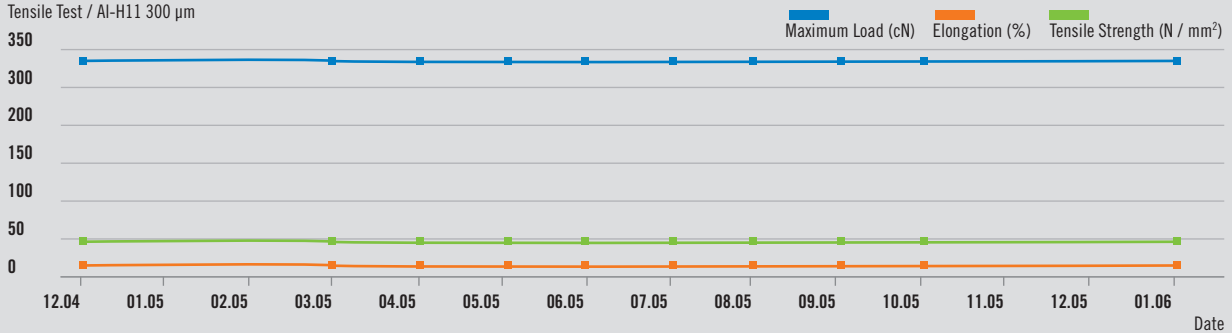
Characteristics of Al-H11

Melting Point	°C	660
Modulus of rigidity	kN / mm ²	27
Thermal conductivity at 20°C	W / m-K	230
Linear expansion coefficient (20 – 30°C)	10 ⁻⁶ -K ⁻¹	25.3
Electrical Resistivity at 20°C	μOhm-cm	2.8
Temperature coefficient of electrical resistance (0 – 100°C)	10 ⁻³ -K ⁻¹	4.14
Relative electrical conductivity (IACS) at 20°C	%	61.6
Meter resistance at ø 25 μm (20°C)	Ω / m	57.1
Thermal emf against Cu (0°/100°C)	mV	-0.35



Aluminum Bonding Wire Long-time Behavior

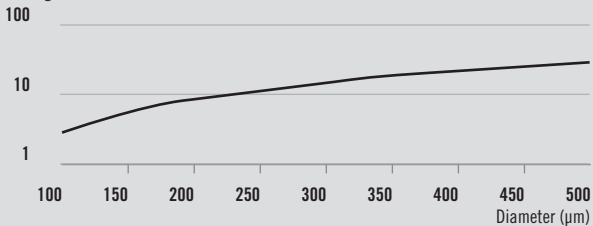
Tensile Test / Al-H11 300 μm



Fusing Current vs Wire Diameter

Al-H11 Wire, 10 mm length, measured in air

Fusing Current (A)



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