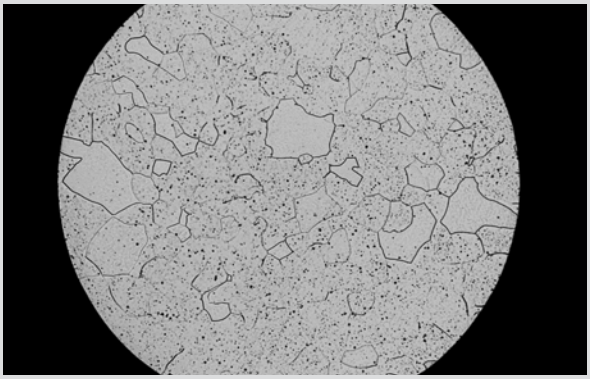
# AluBond Prime Wire

## Aluminum Bonding Wire for Extended Corrosion Resistance



### Al-H14 CR Benefits

- Best corrosion resistance
- Comes in two versions: medium and soft
- Medium performance for high strength requirements
- Soft performance for extra sensible chip bonding and outstanding soft bonding properties
- Available in both, wire & ribbon shape

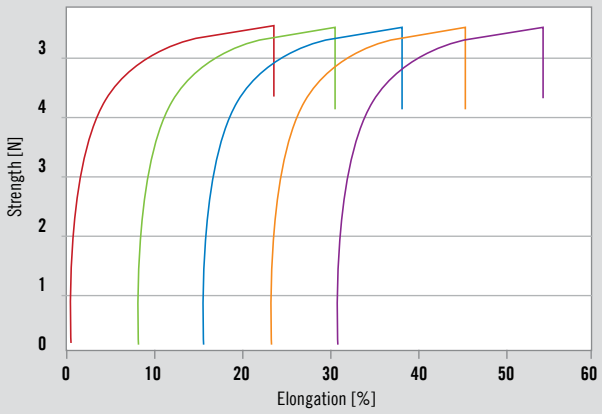
Al-H14 CR wires and ribbons consist of high purity aluminum with selected addition elements homogeneously distributed in defined concentrations. The corrosion resistant Al-H14 CR wire fulfils the increasing requirements made on the reliability of bonded connections in automobile and power electronics.

### Areas of Application

- Automotive components
- Power components
- Hybrid components
- Transistors / thyristors

### Serial Tensile Test Result from Soft AluBond Prime Wire

300 µm/12 mil




### Recommended Technical Data of AluBond Prime Wire

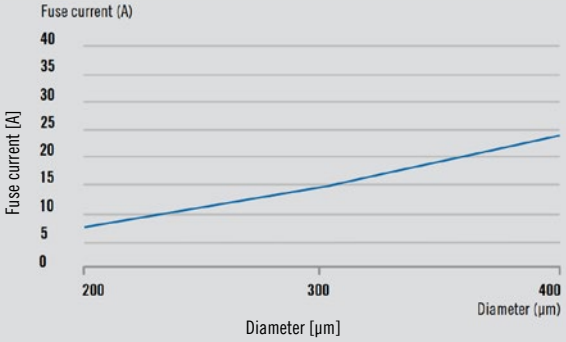
| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Diameter** | **Micron** | 125 | 200 | 250 | 300 | 380 | 400 | 500 |
| | **Mil** | 5 | 8 | 10 | 12 | 15 | 16 | 20 |
| **Medium** | **Elongation [%]** | > 10 | > 15 | > 15 | > 15 | > 15 | > 15 | > 15 |
| | **Breaking Load [cN]** | 75–120 | 200–290 | 300–450 | 450–650 | 700–1050 | 750–1200 | 1150–1850 |
| **Soft** | **Elongation [%]** | | > 10 | > 10 | > 10 | > 10 | > 10 | > 10 |
| | **Breaking Load [cN]** | | 140–200 | 220–300 | 320–420 | 475–675 | 550–750 | 850–1150 |

For other diameters, please contact Heraeus Electronics Product Management

## Characteristics of AluBond Prime Wire

| | | |
|---|---|---|
| **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** | **%** | 64.0 |
| **Meter resistance at ø 25 µm (20°C)** | **Ω / m** | 57.1 |

## Fuse Current of AluBond Prime Wire




Loop length: 20 mm
Ramp: 0.2 A/s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