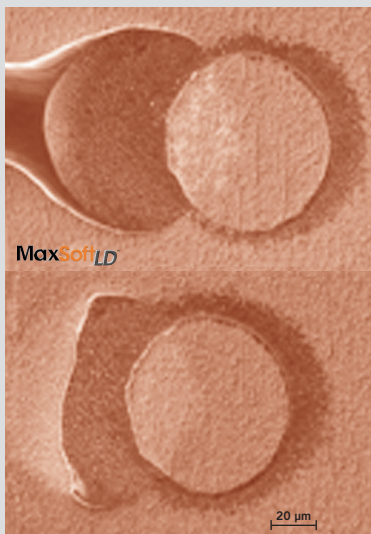
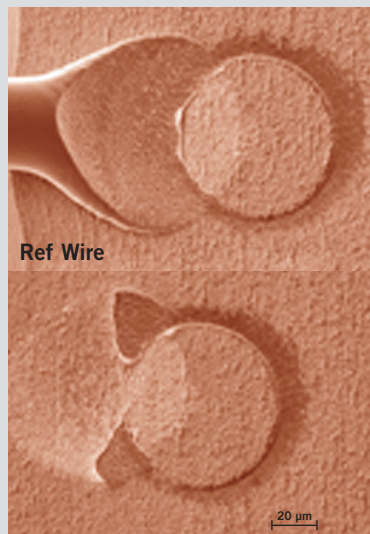


MaxSoft^{LD}

Large Copper Wire Demanding 1st & 2nd Bond Applications



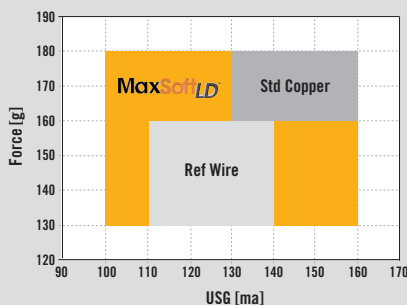
Excellent 2nd bond



MaxSoft^{LD} Benefits

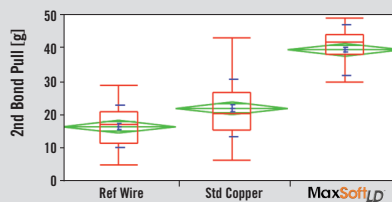
- Superior 1st and 2nd bond performance
- Soft wire characteristics enable:
 - Bonding on challenging pad structure
 - Higher stitch pull value for a stronger 2nd bond
 - Robust and wider 2nd bond process window
- High reliability wire with slow and uniform intermetallic growth
- Available in large diameters ranging from 1.5 mil to 3.0 mil (38 µm to 75 µm)

Wider 2nd Bond Process Window



Wire diameter: 50 µm · Device: PLCC68L Package
 Capillary: CU-L8-1209-P37 (H2.5, CD3.1, T8.2, FA08)
 Bonder: 8028PPS · Bonding Temperature: 220°C

Higher Stitch Pull Values



Wire diameter: 50 µm · Device: TSSOP Package
 Capillary: CU-L8-1302-P37 (H2.6, CD3.7, T8.0, FA08)
 Bonder: Maxum Plus · Bonding Temperature: 240°C

Recommended Technical Data of MaxSoft^{LD}

Diameter	Microns	38	45	50	63	75
	Mils	1.5	1.8	2.0	2.5	3.0
Recommended Specs for Ball Bonding						
Elongation (%)		10 – 20	10 – 20	10 – 20	10 – 25	10 – 25
Breaking Load (g)		15 – 35	22 – 42	30 – 50	50 – 80	70 – 110

For other diameters, please contact Heraeus Bonding Wire sales representative.

MaxSoft^{LD} Characteristics for 50 µm diameter wire

Physical Properties

Density	8.92 g/cm ³
Melting Point	1083 °C
Thermal Conductivity	401 W/m.K
Specific Heat Capacity @ 25 °C	385 J/kg.K
Coeff. of Thermal Expansion	16.5 µm/m °C, (20 – 100 °C)
Electrical Resistivity	1.69 µΩ/cm
FAB Hardness (120 mA EFO)	80 – 90 HV (0.02 N/5 s)
Wire Hardness	80 – 90 HV (0.02 N/5 s)
Elastic Modulus	60 – 90 GPa

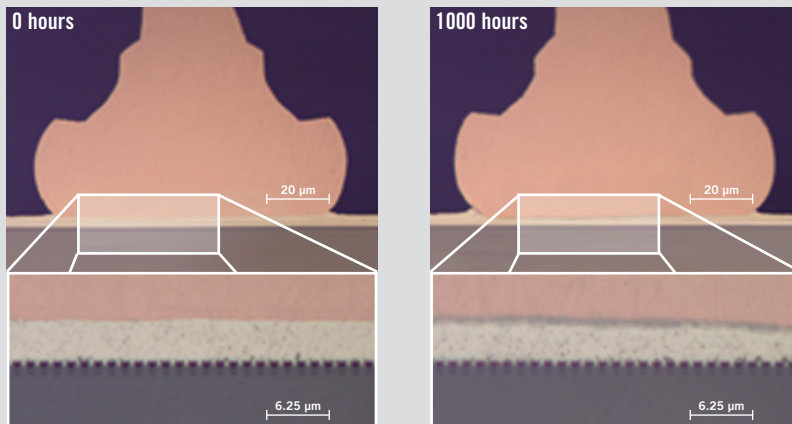
Chemical Composition

Copper	99.99% (min)
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Others

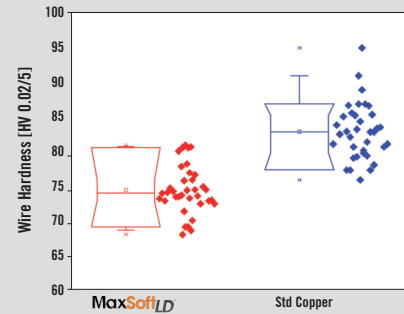
Floor Life	7 days
Shelf Life Time	6 month
Recommended Shielding Gas	Forming Gas (95%N ₂ , 5%H ₂)
Bonding Temperature (Leadframe)	200 – 240 °C

Excellent Reliability

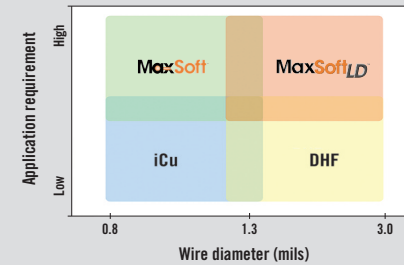


Bare die HTS @ 175 °C, diameter: 50 µm, pad thickness: 3 µm Al

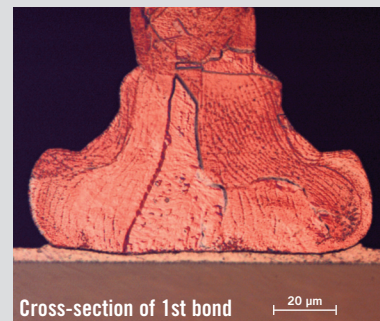
Soft Wire Characteristic



Copper Wire Products



Minimum Pad Deformation



Diameter: 50 µm, pad thickness: 3 µm Al

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