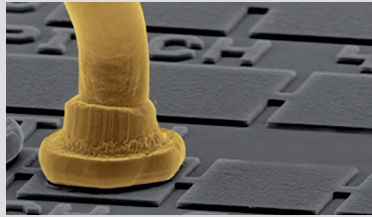
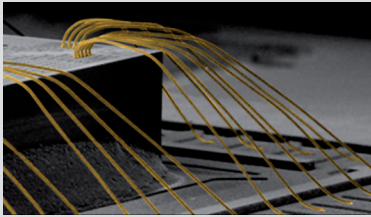


Au HA6 Universal Wire for Fine Pitch and Low Loop



Au HA6 Benefits

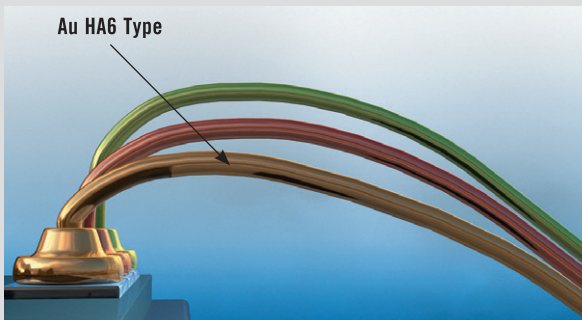
- High strength and fine pitch wire type
- Increased strength, high loop stiffness
- Very good pull strengths and shear
- Long & low loop geometries
- Optimum stabilized phase formation
- High thermal stability
- Improved reliability

In contrast to doped Au wires, alloyed wire types contain a low percentage of alloying elements. This results in markedly higher wire strength, shorter heat affected zones and better thermal stability without a significant increase in electrical resistance. The increased wire strength, while maintaining all other mechanical properties, permits a

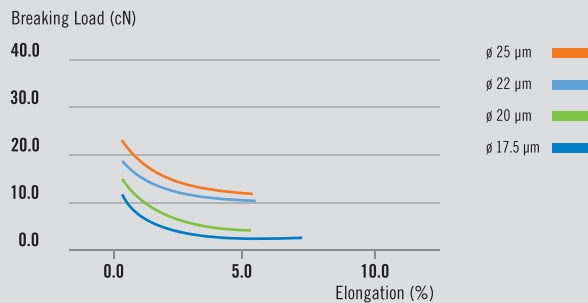
reduction of wire diameter together with a marked saving in precious metal costs.

Areas of application

- High frequency bonding
- Low temperature bonding
- Low- and long-loop bonding
- High speed bonding
- Ultra fine pitch bonding
- Ball bumping



Breaking Load vs. Elongation



Recommended Technical Data of Au HA6

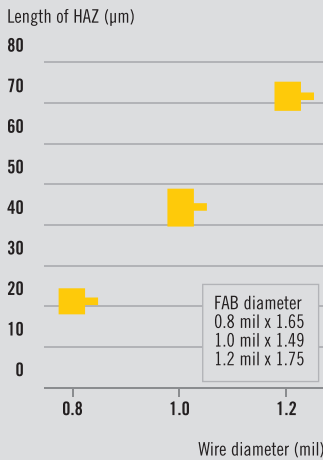
Diameter	Microns (µm)	17.5	20	23	25	30	33	38	50
	Mils	0.7	0.8	0.9	1.0	1.2	1.3	1.5	2.0
Elongation	%	2-6	2-6	2-6	2-8	2-8	3-8	3-8	3-8
Breaking Load	cN	> 4	> 5	> 7	> 9	> 14	> 17	> 20	> 38

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

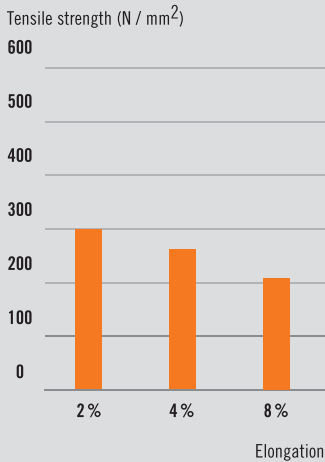
HA6 Characteristics for 25 µm diameter

Non-Gold Elements	< 100 ppm	Heat Conductivity	3.12 W/cm.K
Elastic Modulus	> 85 GPa	Electrical Resistivity	2.3 µΩ-cm
Heat Affected Zone (HAZ)	70–110 µm	Coeff. of Linear Expansion (20 – 100 °C)	14.2 ppm/K
Melting Point	1063 °C	Fusing Current for 25 µm, dia 10 mm length (in air)	0.36 A
Density	19.32 g/cm ³		

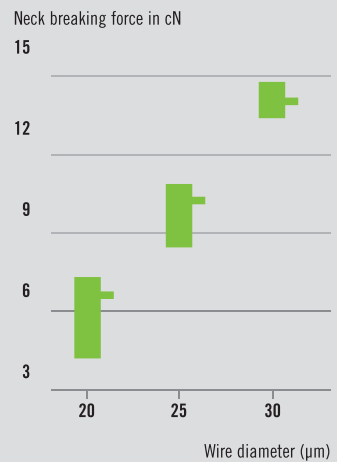
Heat Affected Zone (HAZ)



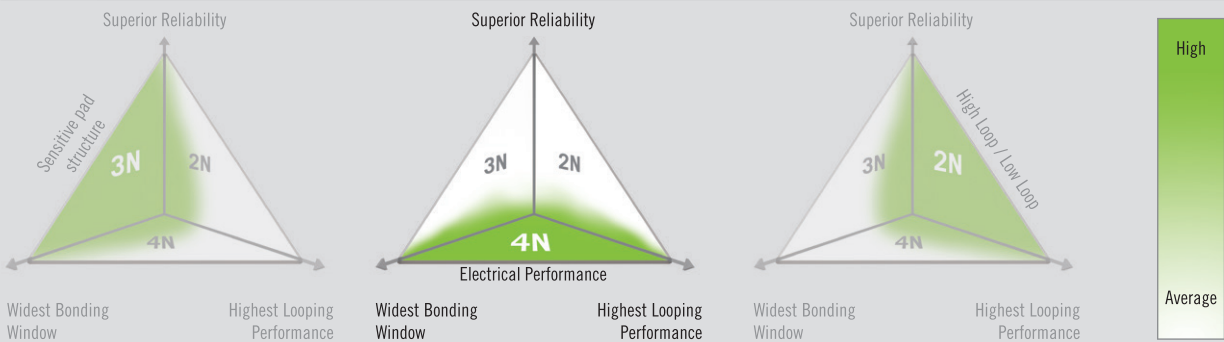
Breaking Load vs. Elongation



Neck Strength



Gold Wire Segmentation by Properties



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