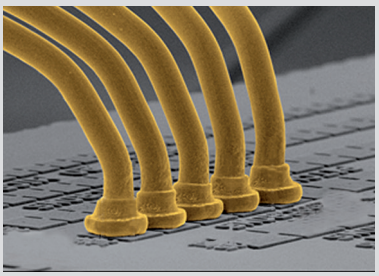
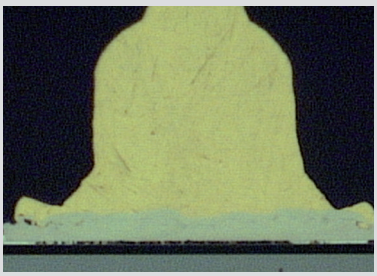
Heraeus

Electronics

Au HD3
Gold Bonding Wire for Universal Use and Low Loop

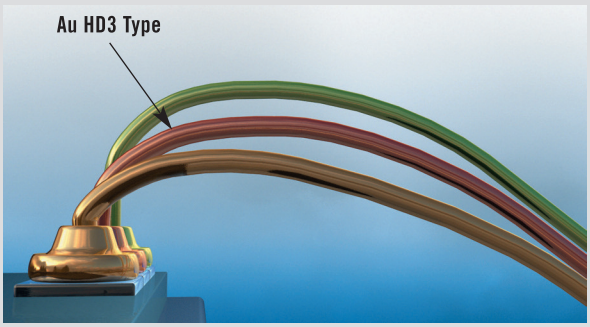




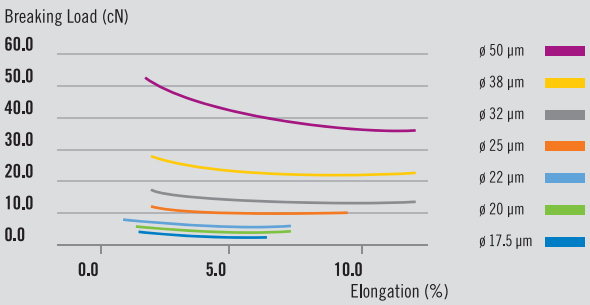
This wire type contains other doping elements apart from the well established beryllium. Due to this doping, type HD3 has a higher strength, loop stiffness and thermal stability than type HD2. Loop stability can also be guaranteed with thinner wire diameters and in flatter and/or long loops.

Areas of application
- Flat integrated circuits (TSOP, TQFP, VSSOP, IC-cards,...)
- Other flat product applications

Au HD3 Benefits
- Low loop wire type
- Soft type bonding wire of high ductility
- Exact loop guiding
- Mid strength type
- Well proven loop stiffness and thermal stability
- Suitable for all high performance bonding machines
- For normal and high speed assembling



Breaking Load vs. Elongation



Recommended Technical Data of Au HD3

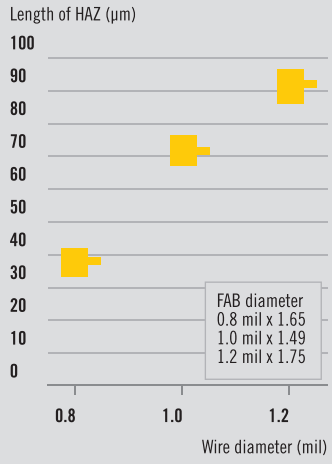
Diameter	**Microns (µm)**	17.5	20	23	25	30	33	38	50
	Mils	0.7	0.8	0.9	1.0	1.2	1.3	1.5	2.0
Elongation	**%**	2 – 5	2 – 6	2 – 7	2 – 8	3 – 8	3 – 8	3 – 10	3 – 12
Breaking Load	**cN**	> 4	> 5	> 7	> 9	> 13	> 16	> 21	> 34

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

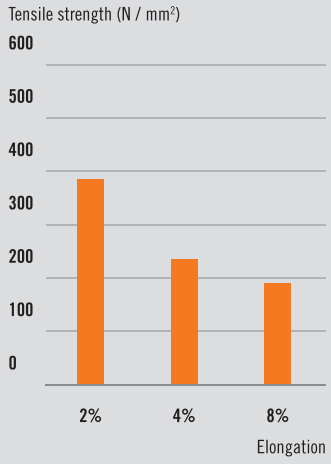
HD3 Characteristics for 25 µm diameter

Non-Gold Elements	< 100 ppm	**Heat Conductivity**	3.12 W / cmK
Elastic Modulus	> 60 GPa	**Electrical Resistivity**	2.3 µΩ-cm
Heat Affected Zone (HAZ)	190 – 230 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)**	0.369 A
Density	19.32 g / cm³		

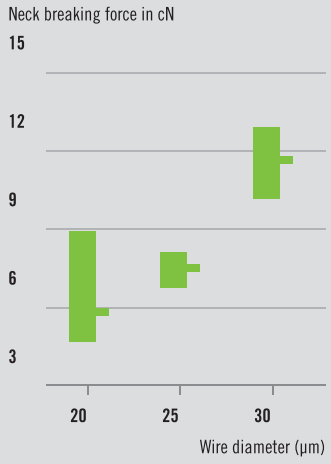
Heat Affected Zone (HAZ)



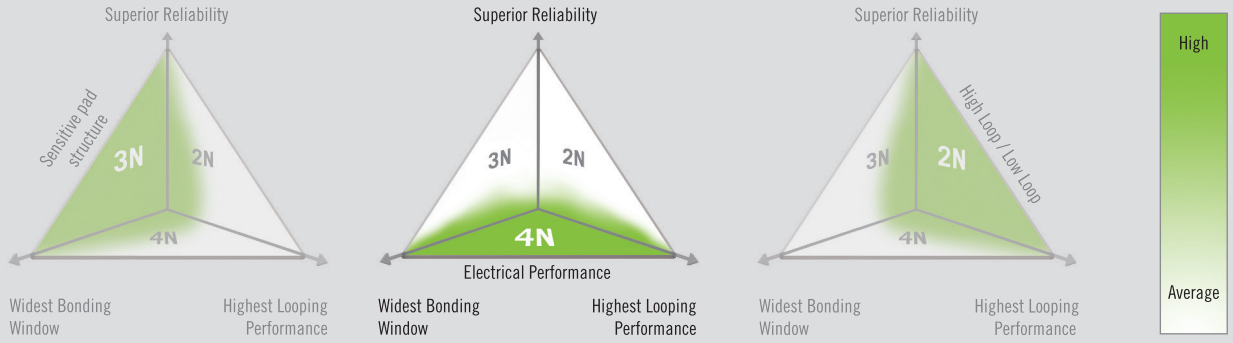
Breaking Load vs. Elongation



Neck Strength



Gold Wire Segmentation by Properties



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