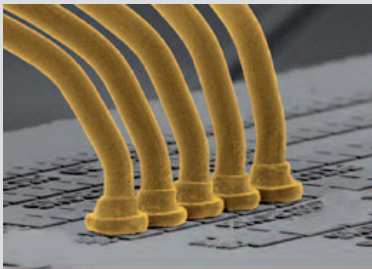
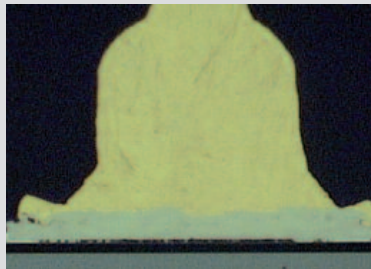


Au HD3 Gold Bonding Wire for Universal Use and Low Loop



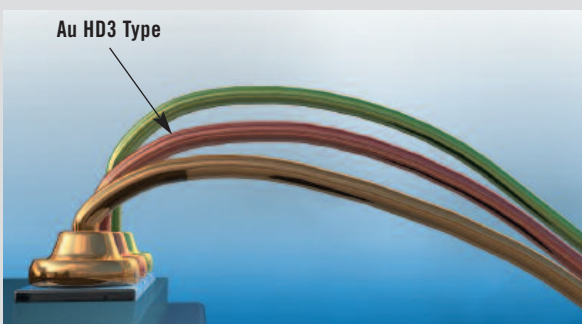
This wire type contains other doping elements apart from the well established beryllium. Due to this doping, type HD3 has a higher strength, loop stiffness and thermal stability than type HD2. Loop stability can also be guaranteed with thinner wire diameters and in flatter and/or long loops.



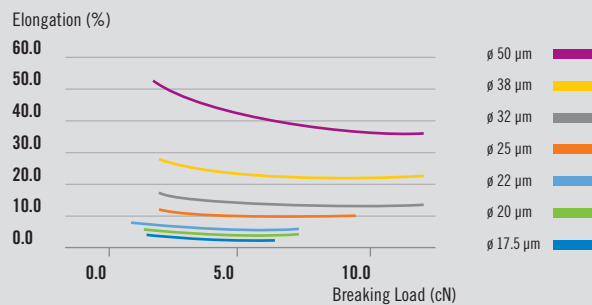
- Areas of application
- Flat integrated circuits (TSOP, TQFP, VSSOP, IC-cards,...)
 - Other flat product applications

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

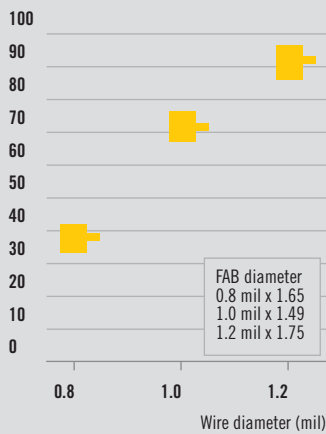
| Diameter | Microns (µm) | 17.5 | 20 | 23 | 25 | 30 | 32 | 38 | 50 |
|---------------|--------------|-------|-------|-------|-------|-------|-------|-------|--------|
| | Mils | 0.7 | 0.8 | 0.9 | 1.0 | 1.2 | 1.25 | 1.5 | 2.0 |
| Elongation | % | 2 – 5 | 2 – 5 | 2 – 8 | 2 – 8 | 2 – 8 | 2 – 8 | 3 – 8 | 3 – 10 |
| Breaking Load | cN | > 4 | > 5 | > 7 | > 9 | > 13 | > 14 | > 19 | > 34 |

Characteristics of Au HD3

| | | | |
|---|-----------|---|---------------------------|
| Non-Gold Elements | < 100 ppm | Melting Point °C | 1063°C |
| Breaking Load @ Room Temperature at 4% EL | > 10 g | Density | 19.32 g / cm ³ |
| Breaking Load @ 250°C / 20 sec | > 9 g | Heat Conductivity | 3.12 W / cmK |
| Elastic Modulus | > 65 GPa | Electrical Resistivity | 2.2 μOhm-cm |
| Heat Affected Zone (HAZ) on 50 μm ball diameter | 70 μm | Coeff. of Linear Expansion (0 – 100°C) | 14.2 ppm / K |
| Neck Strength at 37 μm ball diameter | 7 g | Fusing Current for 25 μm, dia 10 mm length (in air) | 0.5 A |

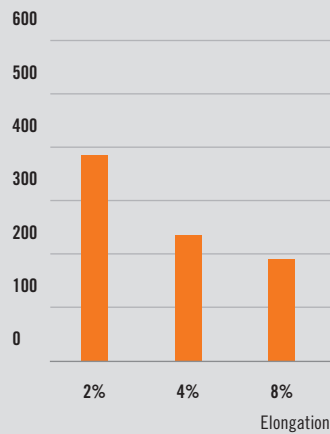
Heat Affected Zone (HAZ)

Length of HAZ (μm)



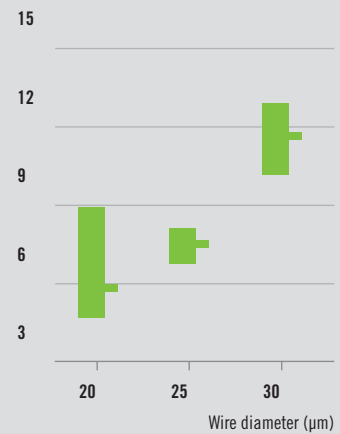
Breaking Load vs. Elongation

Tensile strength (N / mm²)

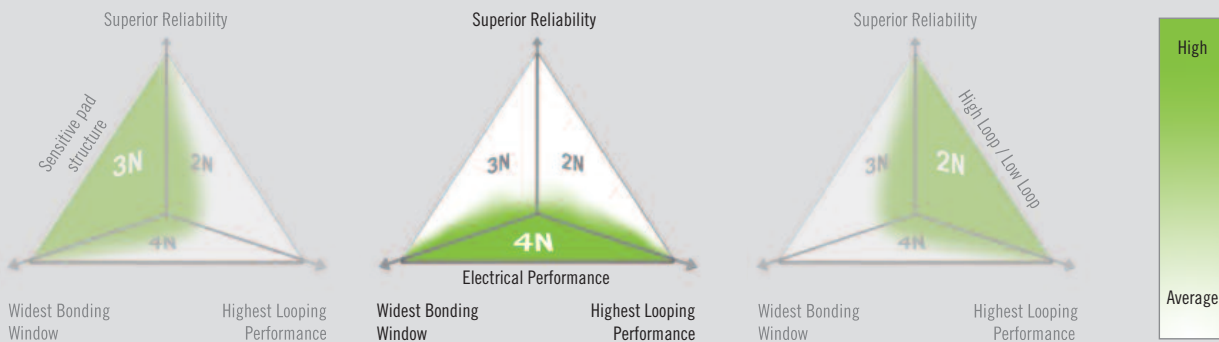


Neck Strength

Neck breaking force in cN



Gold Wire Segmentation by Properties



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