Heraeus

Au HD5 Gold Bonding Wire for High Electrical Performance and Low Loop



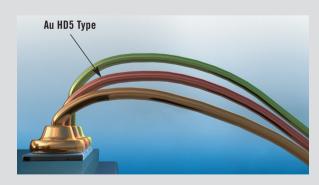
These highly doped wires of different chemical compositions are very suitable for low and long loop applications. Both wire types are comparable in their characteristics and offer outstanding material and processing properties as well as good high temperature strength.

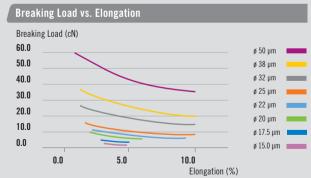
They represent an excellent bridge between doped and alloyed wires. Areas of application

- Flat integrated circuits (BGA, MQFP, CQP, TSOP, TQFP, VSSOP, IC-cards,...)
- COB, foil frames

Au HD5 Benefits

- Low and long loop wire type
- Suitable for all high performance bonding machines
- Mid strength type
- Exact loop guiding
- Well proven loop stiffness and thermal stability
- Good high temperature strength



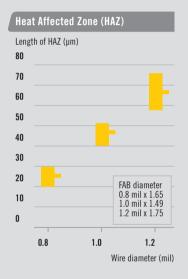


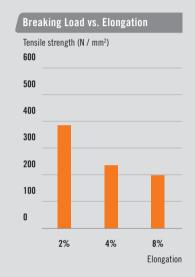
| Recommended Technical Data of Au HD5 | | | | | | | | | | |
|--------------------------------------|--------------|-------|-------|-------|-------|-------|-------|-------|--------|--|
| Diameter | Microns (µm) | 17.5 | 20 | 23 | 25 | 30 | 33 | 38 | 50 | |
| | Mils | 0.7 | 0.8 | 0.9 | 1.0 | 1.2 | 1.3 | 1.5 | 2.0 | |
| Elongation | % | 2 - 5 | 2 - 5 | 2 – 8 | 2 – 8 | 2 – 8 | 2 - 8 | 3 – 8 | 3 – 10 | |
| Breaking Load | cN | > 5 | > 6 | > 7 | > 9 | > 14 | > 16 | > 20 | > 35 | |

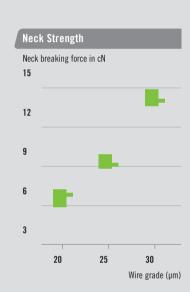
For other diameters, please contact Heraeus Bonding Wires sales representative.

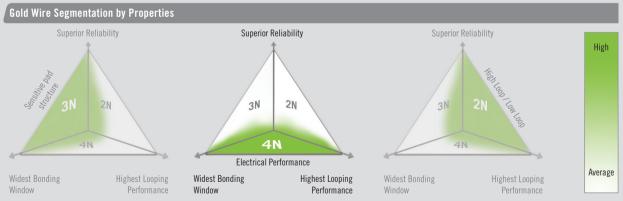
Heraeus

| HD5 Characteristics for 25 µm diame | ter | | |
|-------------------------------------|---------------------------|---|--------------------|
| Non-Gold Elements | < 100 ppm | Heat Conductivity | 3.12 W / cm·K |
| Elastic Modulus | > 80 GPa | Electrical Resistivity | 2.3 μ Ω -cm |
| Heat Affected Zone (HAZ) | 75 — 115 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) | 0.363 A |
| Density | 19.32 g / cm ³ | | |









Heraeus Electronics

Heraeus Deutschland GmbH & Co. KG Heraeusstraße 12-14 63450 Hanau, Germany www.heraeus-electronics.com

Americas

Phone +1 610 825 6050 electronics.americas@heraeus.com

Asia Pacific

Phone +65 6571 7677 electronics.apac@heraeus.com

China

Phone +86 21 3357 5457 electronics.china@heraeus.com

Europe, Middle East and Africa

Phone +49 6181 35 3069 +49 6181 35 3627 electronics.emea@heraeus.com

The descriptions and engineering data shown here have been compiled by Heraeus using commonly-accepted procedures, in conjunction with modern testing equipment, and have been compiled as according to the latest factual knowledge in our possession. The information was up-to date on the date this document was printed (latest versions can always be supplied upon request). Although the data is considered accurate, we cannot guarantee accuracy, the results obtained from its use, or any patent infringement resulting from its use (unless this is contractually and explicitly agreed in writing, in advance). The data is supplied on the condition that the user shall conduct tests to determine materials suitability for particular application.