MaxSoft™ LD
Large Copper Wire Demanding 1st & 2nd Bond Applications

**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)

**Recommended Technical Data of MaxSoft™ LD**

<table>
<thead>
<tr>
<th>Diameter</th>
<th>Microns</th>
<th>38</th>
<th>45</th>
<th>50</th>
<th>63</th>
<th>75</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mils</td>
<td></td>
<td>1.5</td>
<td>1.8</td>
<td>2.0</td>
<td>2.5</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**Recommended Specs for Ball Bonding**

| Breaking Load (g) | 15 – 35 | 22 – 42 | 30 – 50 | 50 – 80 | 70 – 110 |

For other diameters, please contact Heraeus Bonding Wire sales representative.
Characteristics for 50 µm diameter wire

**Physical Properties**
- **Density**: 8.92 g/cm³
- **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)
- **Others**

**Others**
- **Floor Life**: 7 days
- **Shelf Life Time**: 6 months
- **Recommended Shielding Gas**: Forming Gas (95%N₂, 5%H₂)
- **Bonding Temperature (Leadframe)**: 200 – 240 °C

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**Excellent Reliability**

**Minimum Pad Deformation**

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**Soft Wire Characteristic**

**Copper Wire Products**

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