# Materials Declaration

| | |
|---|---|
| **Package** | Sidebraze |
| **Body Size** | 300 mils |
| **Lead Count** | 16 |
| **Option** | Au |

### Combolid

| Item | % of Combolid | Weight (g) | PPM |
|---|---|---|---|
| Kovar | 92 | 1.93E-01 | 125699 |
| Nickel | 4 | 8.40E-03 | 5465 |
| Gold | 4 | 8.40E-03 | 5465 |
| Subtotal | | 2.10E-01 | 136630 |

### Lid Frame

| Item | % of Lid Frame | Weight (g) | PPM |
|---|---|---|---|
| Gold | 79.58 | 9.55 E-03 | 6213 |
| Sn | 20.42 | 2.45 E-03 | 1594 |
| Subtotal | | 1.20 E-02 | 7807 |

### Ceramic Package

| Item | % of Ceramic | Weight (g) | PPM |
|---|---|---|---|
| **Ceramic** | | | |
| Al2O3 | 90.5 | 7.34 E-01 | 477524 |
| Cr2O3 | 3.9 | 3.16 E-02 | 20578 |
| SiO2 | 3.5 | 2.84 E-02 | 18468 |
| TiO2 | 1.0 | 8.11 E-03 | 5277 |
| Cao | 0.6 | 4.87 E-03 | 3166 |
| MgO | 0.5 | 4.06 E-03 | 2638 |
| Subtotal | | 8.11 E-01 | 527651 |
| | | | |
| **Metallization** | | | |
| Tungsten | 96.61 | 4.44 E-02 | 28914 |
| Molybdenum | 3.39 | 1.56 E-03 | 1015 |
| Subtotal | | 4.60 E-02 | 29928 |
| | | | |
| **Lead** | | | |
| Iron | 58 | 1.48 E-01 | 96226 |
| Nickel | 40.7 | 1.04 E-01 | 67524 |
| Manganese | 0.8 | 2.04 E-03 | 1327 |
| Cobalt | 0.5 | 1.28 E-03 | 830 |
| Subtotal | | 2.55 E-01 | 165908 |
| | | | |
| **Ag-Au ( base metal)** | | | |
| Silver | 85 | 1.02 E-02 | 6636 |
| Copper | 15 | 1.80 E-03 | 1171 |
| Subtotal | | 1.20 E-02 | 7807 |
| | | | |
| **Nickel Plating ( 1st coating)** | | | |
| Nickel | 93.89 | 9.39 E-03 | 6109 |
| Palladium | 5.36 | 5.36 E-04 | 349 |
| Boron | 0.7 | 7.00 E-05 | 46 |
| Lead | 0.05 | 5.00 E-06 | 3 |
| Subtotal | | 1.00 E-02 | 6506 |
| | | | |
| **Nickel Plating ( 2nd layer)** | | | |
| Nickel | 92 | 9.20 E-03 | 5986 |
| Cobalt | 8 | 8.00 E-04 | 520 |
| Subtotal | | 1.00 E-02 | 6506 |

### External Leadframe Plating

| Item | % of External Plating | Weight (g) | PPM |
|---|---|---|---|
| Gold | 100 | 1.00 E-02 | 6506 |

### Bond Wires

| Item | % of Wire | Weight (g) | PPM |
|---|---|---|---|
| Aluminum | 100 | 7.40 E-02 | 48146 |

### Chip 1

| Item | % of Chip | Weight (g) | PPM |
|---|---|---|---|
| Si | 100 | 1.30 E-02 | 8458 |

### Die Attach Paste

| Item | % of Die Attach Paste | Weight (g) | PPM |
|---|---|---|---|
| Silver Filler | 80 | 5.92 E-02 | 38517 |
| Cyanate ester resin | 20 | 1.48 E-02 | 9629 |
| | | 7.40 E-02 | 48146 |

### Package Totals

| Weight (g) | PPM |
|---|---|
| **1.54E+00** | **1000000** |

Note: The information provided in this declaration are true to the best of ADI's knowledge.
ADI derived most of the information listed in this declaration from documents provided by third parties, and assumes no liability to any inaccuracy of such information.

ANALOG DEVICES

# Materials Declaration

| | |
|---|---|
| **Package** | Sidebraze |
| **Body Size** | 300 mils |
| **Lead Count** | 16 |
| **Option** | SnPb |

## Combolid

| Item | % of Combolid | Weight (g) | PPM |
|---|---|---|---|
| Kovar | 92 | 1.78E-01 | 101696 |
| Nickel | 4 | 7.76E-03 | 4422 |
| Gold | 4 | 7.76E-03 | 4422 |
| Subtotal | | 1.94E-01 | 110539 |

## Lid Frame

| Item | % of Lid Frame | Weight (g) | PPM |
|---|---|---|---|
| Gold | 79.58 | 9.55 E-03 | 5441 |
| Sn | 20.42 | 2.45 E-03 | 1396 |
| Subtotal | | 1.20 E-02 | 6837 |

## Ceramic Package

| Item | % of Ceramic | Weight (g) | PPM |
|---|---|---|---|
| Al2O3 | 77.0 | 8.84 E-01 | 503672 |
| Iron | 6.3 | 7.24 E-02 | 41275 |
| Nickel | 4.9 | 5.58 E-02 | 31790 |
| Cr2O3 | 3.3 | 3.80 E-02 | 21651 |
| SiO2 | 3.0 | 3.47 E-02 | 19754 |
| Tungsten | 2.5 | 2.87 E-02 | 16353 |
| TiO2 | 0.9 | 9.87 E-03 | 5625 |
| CaO | 0.5 | 5.97 E-03 | 3401 |
| Ag | 0.5 | 5.40 E-03 | 3074 |
| MgO | 0.4 | 4.94 E-03 | 2813 |
| Gold | 0.2 | 1.84 E-03 | 1047 |
| Cu | 0.01 | 1.15 E-04 | 65 |
| Co | 0.02 | 2.30 E-04 | 131 |
| Mo | 0.01 | 1.15 E-04 | 65 |
| Subtotal | | 1.14 E+00 | 650718 |

## Bond Wires

| Item | % of Wire | Weight (g) | PPM |
|---|---|---|---|
| Aluminum | 100 | 7.00 E-03 | 3989 |

## Chip

| Item | % of Chip | Weight (g) | PPM |
|---|---|---|---|
| Si | 100 | 1.30 E-02 | 7407 |

## External Leadframe Plating

| Item | % of Plating | Weight (g) | PPM |
|---|---|---|---|
| Tin | 63 | 2.36 E-01 | 134254 |
| Lead | 37 | 1.38 E-01 | 78848 |
| Subtotal | | 3.74 E-01 | 213102 |

## Die Attach Paste

| Item | % of Die Attach Paste | Weight (g) | PPM |
|---|---|---|---|
| Silver Filler | 80 | 1.04 E-02 | 5926 |
| Cyanate ester resin | 20 | 2.60 E-03 | 1481 |
| Subtotal | | 1.30 E-02 | 7407 |

## Package Totals

| Weight (g) | PPM |
|---|---|
| **1.76E+00** | **1000000** |

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