# Materials Declaration

| | |
|---|---|
| **Package** | TQFP - EP |
| **Body Size** | 10 X 10 X 1.0 (6.5 EP) |
| **LeadCount** | 52 |
| **Option** | Pb-free, Halide-free |

### Molding Compound

| Substance | % of Compound | Weight (g) | PPM |
|---|---|---|---|
| Silica | 88 | 1.36 E-01 | 479561 |
| Epoxy & Phenol Resin | 11.5 | 1.78 E-02 | 62669 |
| Carbon black | 0.5 | 7.72 E-04 | 2723 |
| Subtotal | 100.0 | 1.54 E-01 | 544953 |

### Leadframe

| Substance | % of Leadframe | Weight (g) | PPM |
|---|---|---|---|
| Copper | 99.25 | 9.37 E-02 | 330602 |
| Chromium | 0.3 | 2.83 E-04 | 998 |
| Tin | 0.25 | 2.36 E-04 | 832 |
| Zinc | 0.2 | 1.89 E-04 | 667 |
| Subtotal | 100 | 9.44 E-02 | 333099 |

### Internal Leadframe Plating

| Substance | % of Plating | Weight (g) | PPM |
|---|---|---|---|
| Silver | 100 | 1.04 E-03 | 3668 |

### External Leadframe Plating

| Substance | % of Plating | Weight (g) | PPM |
|---|---|---|---|
| Tin | 100 | 7.67 E-03 | 27036 |

### Bond Wires

| Substance | % of Wire | Weight (g) | PPM |
|---|---|---|---|
| Gold | 99.99 | 8.83 E-04 | 3115 |

### Chip

| Substance | % of Chip | Weight (g) | PPM |
|---|---|---|---|
| Doped Silicon | 100 | 2.06 E-02 | 72619 |

### Die Attach

| Substance | % of Die Attach | Weight (g) | PPM |
|---|---|---|---|
| Silver | 72.40 | 3.18 E-03 | 11229 |
| Epoxy compound | 18.10 | 7.96 E-04 | 2807 |
| Anhydrides | 6.79 | 2.99 E-04 | 1053 |
| Polymeric material | 2.71 | 1.19 E-04 | 420 |
| Subtotal | 100.00 | 4.40 E-03 | 15509 |

### Molding Compound

| Substance | PPM | Method |
|---|---|---|
| Lead | Not Detected | Draft IEC 62321. ICP |
| Cadmium | Not Detected | Draft IEC 62321. ICP |
| Mercury | Not Detected | Draft IEC 62321. ICP |
| Chromium+6 | Not Detected | Draft IEC 62321. Colorimetric Method. |
| Polybrominated biphenyls (PBB) | Not Detected | Draft IEC 62321. GC-MS. |
| Polybrominated Diphenyl Ethers (PBDE) | Not Detected | Draft IEC 62321. GC-MS. |

### Die Attach Paste

| Substance | PPM | Method |
|---|---|---|
| Lead | Not Detected | IEC 62321. ICP-AES. |
| Cadmium | Not Detected | IEC 62321. ICP-AES. |
| Mercury | Not Detected | IEC 62321. ICP-AES. |
| Chromium+6 | Not Detected | IEC 62321. UV-VIS. |
| Polybrominated biphenyls (PBB) | Not Detected | IEC 62321. LC-MS. |
| Polybrominated Diphenyl Ethers (PBDE) | Not Detected | IEC 62321. LC-MS. |

### Package Totals

| Weight (g) | PPM |
|---|---|
| **2.84 E-01** | 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

ADI Proprietary

# Materials Declaration

| | |
|---|---|
| **Package** | TQFP - EP |
| **Body Size** | 10 X 10 X 1.0 (6.5 EP) |
| **LeadCount** | 52 |
| **Option** | with Pb, Halide-free |

### Molding Compound

| Substance | % of Compound | Weight (g) | PPM |
|---|---|---|---|
| Silica | 88 | 1.36 E-01 | 478500 |
| Epoxy & Phenol Resin | 11.5 | 1.78 E-02 | 62530 |
| Carbon black | 0.5 | 7.72 E-04 | 2717 |
| Subtotal | 100 | 1.54 E-01 | 543747 |

### Leadframe

| Substance | % of Leadframe | Weight (g) | PPM |
|---|---|---|---|
| Copper | 99.25 | 9.37 E-02 | 329870 |
| Chromium | 0.3 | 2.83 E-04 | 996 |
| Tin | 0.25 | 2.36 E-04 | 831 |
| Zinc | 0.2 | 1.89 E-04 | 665 |
| Subtotal | 100 | 9.44 E-02 | 332362 |

### Internal Leadframe Plating

| Substance | % of Plating | Weight (g) | PPM |
|---|---|---|---|
| Silver | 100 | 1.04 E-03 | 3660 |

### External Leadframe Plating

| Substance | % of Plating | Weight (g) | PPM |
|---|---|---|---|
| Tin | 85 | 7.05 E-03 | 24812 |
| Lead | 15 | 1.24 E-03 | 4378 |
| Subtotal | 100 | 8.29 E-03 | 29190 |

### Bond Wires

| Substance | % of Wire | Weight (g) | PPM |
|---|---|---|---|
| Gold | 99.99 | [illegible] | [illegible] |

### Chip

| Substance | % of Chip | Weight (g) | PPM |
|---|---|---|---|
| Doped Silicon | 100 | 2.06 E-02 | 72458 |

### Die Attach

| Substance | % of Die Attach | Weight (g) | PPM |
|---|---|---|---|
| Silver | 72.40 | 3.18 E-03 | 11204 |
| Epoxy compound | 18.10 | 7.96 E-04 | 2801 |
| Anhydrides | 6.79 | 2.99 E-04 | 1051 |
| Polymeric material | 2.71 | 1.19 E-04 | 419 |
| Subtotal | 100.00 | 4.40 E-03 | 15475 |

### Package Totals

| Weight (g) | PPM |
|---|---|
| **2.84 E-01** | 1000000 |

### Molding Compound

| Substance | PPM | Method |
|---|---|---|
| Lead | Not Detected | Draft IEC 62321. ICP |
| Cadmium | Not Detected | Draft IEC 62321. ICP |
| Mercury | Not Detected | Draft IEC 62321. ICP |
| Chromium+6 | Not Detected | Draft IEC 62321. Colorimetric Method. |
| Polybrominated biphenyls (PBB) | Not Detected | Draft IEC 62321. GC-MS. |
| Polybrominated Diphenyl Ethers (PBDE) | Not Detected | Draft IEC 62321. GC-MS. |

### Die Attach Paste

| Substance | PPM | Method |
|---|---|---|
| Lead | Not Detected | IEC 62321. ICP-AES. |
| Cadmium | Not Detected | IEC 62321. ICP-AES. |
| Mercury | Not Detected | IEC 62321. ICP-AES. |
| Chromium+6 | Not Detected | IEC 62321. UV-VIS. |
| Polybrominated biphenyls (PBB) | Not Detected | IEC 62321. LC-MS. |
| Polybrominated Diphenyl Ethers (PBDE) | Not Detected | IEC 62321. LC-MS. |

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