# Device Material Content

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**Package:** **20 PDIP** **with Matte Sn Plating**
**Total Device Weight** **1.55** **Grams**

| August, 2008 | % of Total Pkg. Wt. | Weight (g) | % of Total Pkg. Wt. | Weight (g) | Substance | CAS # | Notes / Assumptions: |
|---|---|---|---|---|---|---|---|
| **Die** | 0.61% | 0.009 | | | Silicon chip | 7440-21-3 | Die size: 3.0 x 2.7 x 0.50 mm |
| **Mold** | 74.16% | 1.149 | | | | | Mold Compound Density between 1.7 and 2.1 grams/cc |
| | | | 63.55% | 0.985 | Silica Fused | 60676-86-0 | 75 to 95% Silica Fused (LSC uses 85.7% in our calculation) |
| | | | 4.45% | 0.069 | Epoxy Resin | - | 2 to 8% Epoxy Resin (LSC uses 6% in our calculation). |
| | | | 4.45% | 0.069 | Phenol Resin | - | 2 to 8% Phenol Resin (LSC uses 6% in our calculation) |
| | | | 1.48% | 0.023 | Epoxy, Cresol Novolac | 29690-82-2 | 1 to 3% Cresol Novolac Epoxy (LSC uses 2% in our calculation). |
| | | | 0.22% | 0.003 | Carbon black | 1333-86-4 | 0.1 to 0.5% Carbon black (LSC uses 0.3% in our calculation) |
| **D/A Epoxy** | 0.05% | 0.0008 | | | Silver-filled epoxy | | |
| | | | 0.03% | 0.0005 | Silver (Ag) | 7440-22-4 | Die attach epoxy Density: 4 grams/cc |
| | | | 0.02% | 0.0003 | other | - | (silver content: 60-100%; LSC uses 80% in our calculation) |
| **Wire** | 0.04% | 0.0006 | | | Gold (Au) | 7440-57-5 | 1.00 mil diameter; 1 wire per package lead; wire length 3 mm |
| **Lead Plating** | 1.77% | 0.027 | | | Tin (Sn) | 7440-31-5 | Plating is 100% Sn; thickness is >10.2 um |
| **Leadframe** | 23.37% | 0.362 | | | | | Leadframe thickness is nominal (per Case Outline) |
| | | | 22.78% | 0.353 | Copper (Cu) | 7440-50-8 | 97.46% Cu |
| | | | 0.55% | 0.009 | Iron (Fe) | 7439-89-6 | 2.35% Fe |
| | | | 0.03% | 0.0004 | Zinc (Zn) | 7440-66-6 | 0.12% Zn |
| | | | 0.02% | 0.0003 | Phosphorus (P) | 7723-14-0 | 0.07% P |

**Notes:**

The values listed above are nominal values based on studies of representatives of this particular package type, and are believed to be as accurate as possible.

Constituent substances and proportions in epoxy materials are before curing.

The information provided above is representative of the package as of the date listed, and is subject to change at any time.

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