

Material Declaration Form

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ams AG
Tobelbader Strasse 30
A-8141 Premstaetten, Austria
Tel +43 (0) 3136 500-0



| Ordering Code | Package Family | Assembly Material Number | Lead Count | Weight (mg) | Manufacturing Country | Halogen Free | EU RoHS | China RoHS | Release Status | Version |
|---------------|----------------|--------------------------|------------|-------------|-----------------------|--------------|---------|------------|----------------|---------|
| TMD37253H235V | OLGA | 503020046 | 8 | 60.09 | Taiwan | YES | YES | YES | FULL | 1 |

| Homogenous Material | Weight (mg) | Symbol | Chemical Substance | Input Ratio (%) | CAS Number | Unit Weight (mg) | Unit Weight (%) | Amount (ppm) | |
|---------------------|------------------|--------|-------------------------------------|------------------|------------|------------------|-----------------|----------------|-------------|
| Substrate | 2.32 | Au | Gold | 0.50 | 7440-57-5 | 0.01160 | 0.01930 | 193 | |
| | | Cu | Copper | 55.00 | 7440-50-8 | 1.27600 | 2.12348 | 21235 | |
| | | Ni | Nickel | 2.00 | 7440-02-0 | 0.04640 | 0.07722 | 772 | |
| | | | Bismaleimide Triazine | 3.50 | 35325-39-4 | 0.08120 | 0.13513 | 1351 | |
| | | | Filament Fiber Glass | 25.00 | 65997-17-3 | 0.58000 | 0.96522 | 9652 | |
| | | | Inorganic Filler | 14.00 | 21645-51-2 | 0.32480 | 0.54052 | 5405 | |
| | Subtotal: | | | 100.00 | | 2.32000 | 3.86088 | 38609 | |
| Solder Mask | 0.41 | SiO2 | Silica | 1.00 | 7631-86-9 | 0.00410 | 0.00682 | 68 | |
| | | | Barium Sulfate | 75.00 | 7727-43-7 | 0.30750 | 0.51173 | 5117 | |
| | | | Carbon Black | 1.00 | 1333-86-4 | 0.00410 | 0.00682 | 68 | |
| | | | Dipropylene glycol monomethyl ether | 18.00 | 34590-94-8 | 0.07380 | 0.12282 | 1228 | |
| | | | Talc | 5.00 | 14807-96-6 | 0.02050 | 0.03412 | 341 | |
| | Subtotal: | | | 100.00 | | 0.41000 | 0.68231 | 6823 | |
| Adhesive (ASIC) | 0.04 | Ag | Silver | 85.00 | 7440-22-4 | 0.03400 | 0.05658 | 566 | |
| | | | Epoxy Resin | 15.00 | 25928-94-3 | 0.00600 | 0.00999 | 100 | |
| | Subtotal: | | | 100.00 | | 0.04000 | 0.06657 | 666 | |
| IC | 0.37 | Si | Silicon | 100.00 | 7440-21-3 | 0.37000 | 0.61574 | 6157 | |
| | | | | Subtotal: | | 100.00 | 0.37000 | 0.61574 | 6157 |

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|---------------------|-------------|--------|---|-----------------|-------------|------------------|-----------------|--------------|
| Adhesive (LED) | 0.01 | Ag | Silver | 90.00 | 7440-22-4 | 0.00900 | 0.01498 | 150 |
| | | | Neopentyl glycol, monobenzoate monoacrylate | 10.00 | 66671-22-5 | 0.00100 | 0.00166 | 17 |
| Subtotal: | | | | 100.00 | | 0.01000 | 0.01664 | 166 |
| LED Die (950nm) | 0.02 | Al | Aluminum | 0.70 | 7429-90-5 | 0.00014 | 0.00023 | 2 |
| | | As | Arsenic | 5.02 | 7440-38-2 | 0.00100 | 0.00167 | 17 |
| | | Au | Gold | 12.69 | 7440-57-5 | 0.00254 | 0.00422 | 42 |
| | | Ga | Gallium | 2.89 | 7440-55-3 | 0.00058 | 0.00096 | 10 |
| | | In | Indium | 0.00 | 7440-74-8 | 0.00000 | 0.00000 | 0 |
| | | Si | Silicon | 78.70 | 7440-21-3 | 0.01574 | 0.02619 | 262 |
| Subtotal: | | | | 100.00 | | 0.02000 | 0.03328 | 333 |
| Wire | 0.05 | Au | Gold | 100.00 | 7440-57-5 | 0.05000 | 0.08321 | 832 |
| Subtotal: | | | | 100.00 | | 0.05000 | 0.08321 | 832 |
| LID Epoxy | 0.07 | | Carbon Black | 3.00 | 1333-86-4 | 0.00210 | 0.00349 | 35 |
| | | | Epoxy Resin | 92.00 | 25085-99-8 | 0.06440 | 0.10717 | 1072 |
| | | | Silica Dioxide | 5.00 | 67762-90-7 | 0.00350 | 0.00582 | 58 |
| Subtotal: | | | | 100.00 | | 0.07000 | 0.11649 | 1165 |
| LCP LID | 5.09 | | Carbon Black | 5.00 | 1333-86-4 | 0.25450 | 0.42353 | 4235 |
| | | | Glass oxide | 60.00 | 65997-17-3 | 3.05400 | 5.08238 | 50824 |
| | | | Liquid crystal polymers | 35.00 | 147310-94-9 | 1.78150 | 2.96472 | 29647 |
| Subtotal: | | | | 100.00 | | 5.09000 | 8.47063 | 84706 |

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| Homogenous Material | Weight (mg) | Symbol | Chemical Substance | Input Ratio (%) | CAS Number | Unit Weight (mg) | Unit Weight (%) | Amount (ppm) |
|---------------------|--------------|------------------|---------------------------|-----------------|-----------------|------------------|------------------|----------------|
| Moldcompound | 1.72 | | 2,6-Ditert.butyl-4-Methyl | 1.00 | 128-37-0 | 0.01720 | 0.02862 | 286 |
| | | | Epoxy Resin | 99.00 | 25068-38-6 | 1.70280 | 2.83375 | 28337 |
| | | Subtotal: | | 100.00 | | 1.72000 | 2.86237 | 28624 |
| Interposer | 49.2 | Cu | Copper | 5.70 | 7440-50-8 | 2.80440 | 4.66700 | 46670 |
| | | | DOPO | 5.00 | 35948-25-5 | 2.46000 | 4.09386 | 40939 |
| | | | E-Glass Fabric | 47.20 | 65997-17-3 | 23.22240 | 38.64603 | 386460 |
| | | | Epoxy Resin | 39.80 | 29690-82-2 | 19.58160 | 32.58712 | 325871 |
| | | | Fillers | 2.30 | 21645-51-2 | 1.13160 | 1.88318 | 18832 |
| | | | Subtotal: | 100.00 | 49.20000 | 81.87718 | 818772 | |
| Solder Paste | 0.79 | Ag | Silver | 3.00 | 7440-22-4 | 0.02370 | 0.03944 | 394 |
| | | | Cu | 0.50 | 7440-50-8 | 0.00395 | 0.00657 | 66 |
| | | | Sn | 96.50 | 7440-31-5 | 0.76235 | 1.26868 | 12687 |
| | | | Subtotal: | 100.00 | 0.79000 | 1.31469 | 13147 | |
| Total: | 60.09 | | | | | 60.09 | 100.00000 | 1000000 |

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