

Product Document

Material Declaration Form

Page 1

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 |
|---------------|----------------|--------------------------|------------|-------------|-----------------------|--------------|---------|------------|----------------|---------|
| TMD49037V | OLGA | 300590052 | 8 | 14.28 | 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 | 3.18 | Au | Gold | 0.50 | 7440-57-5 | 0.01590 | 0.11134 | 1113 |
| | | Cu | Copper | 55.00 | 7440-50-8 | 1.74900 | 12.24790 | 122479 |
| | | Ni | Nickel | 2.00 | 7440-02-0 | 0.06360 | 0.44538 | 4454 |
| | | | Bismaleimide Triazine | 3.50 | 35325-39-4 | 0.11130 | 0.77941 | 7794 |
| | | | Filament Fiber Glass | 25.00 | 65997-17-3 | 0.79500 | 5.56723 | 55672 |
| | | | Inorganic Filler | 14.00 | 21645-51-2 | 0.44520 | 3.11765 | 31176 |
| | | Subtotal: | | | | 100.00 | | 3.18000 |
| Solder Mask | 0.56 | SiO2 | Silica | 1.00 | 7631-86-9 | 0.00560 | 0.03922 | 392 |
| | | | Barium Sulfate | 75.00 | 7727-43-7 | 0.42000 | 2.94118 | 29412 |
| | | | Carbon Black | 1.00 | 1333-86-4 | 0.00560 | 0.03922 | 392 |
| | | | Dipropylene glycol monomethyl ether | 18.00 | 34590-94-8 | 0.10080 | 0.70588 | 7059 |
| | | | Talc | 5.00 | 14807-96-6 | 0.02800 | 0.19608 | 1961 |
| Subtotal: | | | | 100.00 | | 0.56000 | 3.92157 | 39216 |
| Adhesive (ASIC) | 0.07 | Ag | Silver | 85.00 | 7440-22-4 | 0.05950 | 0.41667 | 4167 |
| | | | Epoxy Resin | 15.00 | 25928-94-3 | 0.01050 | 0.07353 | 735 |
| Subtotal: | | | | 100.00 | | 0.07000 | 0.49020 | 4902 |
| IC | 0.59 | Si | Silicon | 100.00 | 7440-21-3 | 0.59000 | 4.13165 | 41317 |
| Subtotal: | | | | 100.00 | | 0.59000 | 4.13165 | 41317 |

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Page 2

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|---------------------|-------------|--------|---|-----------------|-------------|------------------|-----------------|---------------|
| Adhesive (LED) | 0.01 | Ag | Silver | 90.00 | 7440-22-4 | 0.00900 | 0.06303 | 630 |
| | | | Neopentyl glycol, monobenzoate monoacrylate | 10.00 | 66671-22-5 | 0.00100 | 0.00700 | 70 |
| Subtotal: | | | | 100.00 | | 0.01000 | 0.07003 | 700 |
| LED Die (950nm) | 0.03 | Al | Aluminum | 0.70 | 7429-90-5 | 0.00021 | 0.00147 | 15 |
| | | As | Arsenic | 5.02 | 7440-38-2 | 0.00151 | 0.01055 | 105 |
| | | Au | Gold | 12.69 | 7440-57-5 | 0.00381 | 0.02666 | 267 |
| | | Ga | Gallium | 2.89 | 7440-55-3 | 0.00087 | 0.00607 | 61 |
| | | In | Indium | 0.00 | 7440-74-8 | 0.00000 | 0.00000 | 0 |
| | | Si | Silicon | 78.70 | 7440-21-3 | 0.02361 | 0.16534 | 1653 |
| Subtotal: | | | | 100.00 | | 0.03000 | 0.21008 | 2101 |
| Wire | 0.06 | Au | Gold | 100.00 | 7440-57-5 | 0.06000 | 0.42017 | 4202 |
| Subtotal: | | | | 100.00 | | 0.06000 | 0.42017 | 4202 |
| LID Epoxy | 0.04 | | Carbon Black | 3.00 | 1333-86-4 | 0.00120 | 0.00840 | 84 |
| | | | Epoxy Resin | 92.00 | 25085-99-8 | 0.03680 | 0.25770 | 2577 |
| | | | Silica Dioxide | 5.00 | 67762-90-7 | 0.00200 | 0.01401 | 140 |
| Subtotal: | | | | 100.00 | | 0.04000 | 0.28011 | 2801 |
| LCP LID | 7.04 | | Carbon Black | 5.00 | 1333-86-4 | 0.35200 | 2.46499 | 24650 |
| | | | Glass oxide | 60.00 | 65997-17-3 | 4.22400 | 29.57983 | 295798 |
| | | | Liquid crystal polymers | 35.00 | 147310-94-9 | 2.46400 | 17.25490 | 172549 |
| Subtotal: | | | | 100.00 | | 7.04000 | 49.29972 | 492997 |

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| Homogenous Material | Weight (mg) | Symbol | Chemical Substance | Input Ratio (%) | CAS Number | Unit Weight (mg) | Unit Weight (%) | Amount (ppm) |
|---------------------|--------------|--------|---------------------------|-----------------|------------|------------------|------------------|----------------|
| Moldcompound | 2.7 | | 2,6-Ditert.butyl-4-Methyl | 1.00 | 128-37-0 | 0.02700 | 0.18908 | 1891 |
| | | | Epoxy Resin | 99.00 | 25068-38-6 | 2.67300 | 18.71849 | 187185 |
| | | | Subtotal: | 100.00 | | 2.70000 | 18.90756 | 189076 |
| Total: | 14.28 | | | | | 14.28 | 100.00000 | 1000000 |

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