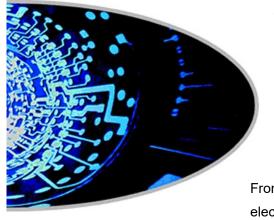
SMQ SURFACE MOUNT QUALITY SOLDER





From the beginning DKL Metals Ltd have been committed to offering the electronic assembly market ultra-high purity solders and consumables, ontime and at competitive prices. In keeping with this policy we are pleased to introduce our **E-Qual SMQ** (Surface Mount Quality) solder bar thus setting even higher standards of purity and performance.

All **E-Qual** solders are manufactured from high grade refined virgin metals and, by means of a special anti-drossing treatment during manufacture will show a marked reduction in dross formation in all assembly situations.

Benefits

- Consistent, clean well formed joints
- High yields, low production costs
- Reduction in icicling and bridging
- Low fillets
- Reduced product usage and machine maintenance
- Meets or exceeds all Internationally recognised Standards
- Optimum performance and batch consistency
- For use with RoHS exempt applications

Compliance

| Element | | ISO 9453 Alloy 102 | ISO 9453 Alloy 101 | Typical E-Qual SMQ % | USA J-STD-006 Sn63Pb37 C | Max. Rec. in use |
|-----------|----|-----------------------|-----------------------|-------------------------------|-----------------------------------|------------------------|
| Tin | Sn | 62.5-63.5 | 62.5-63.5 | 62.75 | % 62.5-63.5 | N/A |
| | | %max | %max | %max | %max | %max |
| Antimony | Sb | 0.05 | 0.20 | 0.02 | 0.05 | 0.20 |
| Copper | Cu | 0.08 | 0.05 | 0.0005 | 0.08 | **0.25 |
| Zinc | Zn | 0.001 | 0.001 | 0.0002 | 0.003 | 0.002 |
| Iron | Fe | 0.02 | 0.02 | 0.001 | 0.02 | 0.01 |
| Arsenic | As | 0.03 | 0.03 | 0.002 | 0.03 | 0.01 |
| Nickel | Ni | 0.01 | *** | 0.001 | 0.01 | 0.01 |
| Bismuth | Bi | 0.05 | 0.10 | 0.01 | 0.10 | 0.01 |
| Cadmium | Cd | 0.002 | 0.002 | 0.0002 | 0.002 | 0.002 |
| Silver | Ag | 0.10 | *** | 0.001 | 0.05 | *** |
| Gold | Au | 0.05 | *** | 0.001 | 0.05 | **0.25 |
| Aluminium | Al | 0.001 | 0.001 | 0.0001 | 0.005 | 0.002 |
| | | | *0.08 | | | |





Quality Control and Analysis

All **E-Qual** solder alloys are manufactured in accordance with our Quality Management System. In February 1991 DKL Metals were amongst the first in the industry to gain third party accreditation for their Quality Management System, which was then BS 5750 Part 2. DKL has continued to maintain and update their QMS in line with the changing requirements of the Quality Standard. Strict quality control procedures are undertaken at every stage of manufacture. Each bar is marked at the time of moulding, with both grade of solder and the unique batch number. This allows for complete and accurate batch make-up and analysis details to be retained for every bar produced. Unlike many solder alloy producers we offer a free regular solder analysis service for a check on bath contamination levels. We will also give advice on contamination levels to ensure that the quality of your solder is maintained within strict operating parameters.

Economy .

E-Qual solders are always competitively priced, however the initial purchase price is not the only governing factor with regards to economy; the rate of dross formation can vary greatly from alloy to alloy thus considerable material may be lost in this way. By means of a special anti-drossing treatment during the manufacturing stage **E-Qual** solders will show a marked reduction in the rate of dross formation when compared to untreated material. Such treatment is effective for some time during the solder's use and provided top-up material is **E-Qual**, then continued good results are obtained. Nonetheless, even **E-Qual** solder inevitably does produce some dross, and in order to assist with handling/safety regulations, dross containers with re-sealable lids are available to our customers, free of charge.

Solder Wire

We offer a wide range of **E-Qual** solder wires in both cored and solid form, which are completely compatible with our **E-Qual** solders and fluxes. These are available as standard resin cored, low-solids, halide-free synthetic resin cored and water washable wires in a wide range of diameters for virtually all applications. Separate data sheets are available on request.

Fluxes -

We have a comprehensive range of fluxes, cleaners and additives for most assembly applications. We would be pleased to discuss your specific requirements and supply appropriate data sheets as necessary.

| FORMS | STYLE | NOMINAL WEIGHT | DIMENSIONS/ DIAMETERS | STANDARD PACKING |
|--------------------|----------------|-------------------|--------------------------|---------------------|
| 34 34 34 ⊙ | Autofeed Ingot | 5kg | 500 x 45 x 33mm | 5kg |
| □ 212 E-Qual SMQ | Autofeed Bar | 2kg | 330 x 45 x 15mm | 24kg Carton |
| 2 (2) 2(1) | Bar | 1kg | 300 x 32 x 12mm | 25kg Carton |
| 34 34 34 | Bar | 500g | 505 x 22 x 6mm | 25kg Carton |
| | Chunks | - | - | 20kg Tub |
| | 500g Reel | 500g | 3.5mm – 0.5mm | 10kg Carton |
| | 3kg Reel | 3kg | 3.5mm – 0.7mm | 12kg Carton |

Packaging

Special packaging arrangements, particularly for export orders can be accommodated on request.



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