CLAIMS

1. A method for producing an electrical component, comprising:

positioning an epoxy substrate;

coating at least one side of the epoxy substrate with an adhesion layer comprising molybdenum, the adhesion layer comprising molybdenum being in direct contact with the epoxy substrate;

coating the adhesion layer with a copper seed layer, the copper seed layer being in direct contact with the adhesion layer comprising molybdenum;

covering at least a portion of the copper seed layer with a coating of photoresist;

removing a section of the coating of the photoresist to produce a surface feature;

performing a copper plating process wherein the surface feature is filled with copper;

removing the photoresist to produce a copper surface that comprises the at least a portion of the copper seed layer that was coated with the photoresist and the copper formed during the copper plating process;

after removing the photoresist, etching the copper surface to remove the at least a portion of the copper seed layer that was coated with the photoresist and leave at least a portion of the copper formed during the copper plating process; and

etching the adhesion layer exposed after etching the copper surface, wherein the adhesion layer is etched to have a width substantially equal to a width of the surface feature adjacent thereto.

2. The method according to claim 1, wherein etching the copper surface comprises a wet copper etching.

3. The method according to claim 1, wherein the removing of the section of the coating of the photoresist is performed through a photoresist developer.

4. The method according to claim 1, wherein the epoxy substrate is an epoxy film.

5. The method according to claim 1, wherein the coating on the at least one side of the epoxy substrate with an adhesion layer comprising molybdenum is performed by a sputtering process.

6. The method according to claim 5, wherein the sputtering process is produced by a magnetron.

7. The method according to claim 1, wherein the molybdenum is molybdenum disulfide.

8. A method for producing an electrical component, comprising:

positioning an epoxy substrate with an adhesion layer containing molybdenum disposed directly on the epoxy substrate and a copper seed layer disposed directly on the adhesion layer;

covering at least a portion of the copper seed layer with a coating of photoresist;

exposing the coating of photoresist, through a mask, to a radiation source;

removing a section of the coating of the photoresist to produce a surface feature transferred from the mask;

performing a copper plating process wherein the surface feature is filled with copper;

removing the photoresist to produce a copper surface that comprises the at least a portion of the copper seed layer that was coated with the photoresist and the copper formed during the copper plating process;

after removing the photoresist, etching the copper surface to remove the at least a portion of the copper seed layer that was coated with the photoresist and leave at least a portion of the copper formed during the copper plating process; and

etching the adhesion layer exposed after etching the copper surface, wherein the adhesion layer is etched to have a width substantially equal to a width of the surface feature adjacent thereto.

9. The method according to claim 8, wherein etching the copper surface comprises a wet copper etching.

10. The method according to claim 8, wherein the removing of the section of the coating of the photoresist is performed through a photoresist developer.

11. The method according to claim 8, wherein the epoxy substrate is an epoxy film.

12. The method according to claim 8, wherein the coating on at least one side of the epoxy substrate with an adhesion layer comprising molybdenum is performed by a sputtering process.

13. The method according to claim 12, wherein the sputtering process is produced by a magnetron.

14. The method according to claim 8, wherein the molybdenum is molybdenum disulfide.

15. A method for producing an electrical component, comprising:

coating a first surface of an epoxy substrate with an adhesion layer comprising molybdenum, the adhesion layer comprising molybdenum being in direct contact with the first surface of the epoxy substrate;

coating the adhesion layer with a copper seed layer, the copper seed layer being in direct contact with the adhesion layer comprising molybdenum;

covering at least a portion of the copper seed layer with a coating of photoresist;

removing a section of the coating of the photoresist to produce a surface feature;

performing a copper plating process wherein the surface feature is filled with copper;

removing the photoresist to produce a copper surface that comprises the at least a portion of the copper seed layer that was coated with the photoresist and the copper formed during the copper plating process;

after removing the photoresist, etching the copper surface to remove the at least a portion of the copper seed layer that was coated with the photoresist and leave at least a portion of the copper formed during the copper plating process; and

etching an exposed surface of the adhesion layer after etching the copper surface to expose the first surface of the epoxy substrate, wherein the adhesion layer is etched to have a width substantially equal to a width of the surface feature adjacent thereto.

16. The method of claim 15, wherein the molybdenum is molybdenum disulfide.

17. The method of claim 15, wherein etching the copper surface comprises wet copper etching.

18. The method of claim 15, wherein the coating of the first surface of the epoxy substrate with an adhesion layer comprising molybdenum is performed by a sputtering process produced by a magnetron.