

THE CLAIMS DEFINING THE INVENTION ARE AS FOLLOWS:

1. A process for the application of an electroluminescent light system to a substrate comprising:

- selecting a substrate;
 - optionally applying an insulting primer layer to the substrate;
 - affixing a first electrical connection to the substrate or primer layer;
 - applying a backplane layer to the substrate or primer layer and the first electrical connection;
 - applying a dielectric paint layer to the backplane layer;
 - applying a phosphor paint layer to the dielectric paint layer;
 - affixing a second electrical connection to the phosphor paint layer;
 - applying a GPI anchor coating to the phosphor paint layer and second electrical connection;
 - applying a substantially transparent electrically conductive film layer to the GPI anchor coating; and
 - applying an encapsulating layer to the electroluminescent light system;
- the phosphor paint layer being excitable upon application of an electric current between the backplane layer and the electrode film layer such that the phosphor layer emits electroluminescent light.

2. The process according to claim 1, wherein the backplane layer, dielectric layer, phosphor layer and encapsulating layer are solvent-based paint layers.

3. The process according to claim 1 or 2, wherein the electrically conductive film layer is an aqueous-based paint layer.

4. The process according to any one of claims 1 to 3, wherein the insulting primer layer, backplane paint layer, dielectric paint layer, phosphor paint layer, GPI anchor coating, electrically conductive film layer and final clear coat are applied by spray conformal coating.

5. The process according to claim 4, wherein the insulting primer layer, backplane paint layer, dielectric paint layer, phosphor paint layer, GPI anchor coating, electrically

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conductive film layer and final clear coat are applied by spray conformal coating under an atmosphere of nitrogen.

6. The process according to claim 4 or 5, wherein the substrate is illuminated by a Blue LED light source or UV light source during application of the phosphor layer.

7. The process according to claim 6, wherein the substrate is illuminated by a Blue LED light source during application of the phosphor layer.

8. The process according to any one of claims 4 to 7, wherein each layer is applied using nitrogen as a carrier gas.

9. The process according to claim 8, wherein the nitrogen is ionised.

10. The process according to claim 8 or 9, wherein the nitrogen is heated to 70°C.

11. The process according to claim 1, wherein the backplane layer, dielectric layer, phosphor layer, GPI anchor coating, and the electrically conductive film layer are applied to the substrate using a printer.

12. The process according to claim 11, wherein the substrate is a vinyl substrate.

13. The process according to claim 11 or 12, wherein the encapsulating layer is a laminate layer.

14. The process according to any one of claims 1 to 13, wherein the electric current is provided by a portable power source comprising one or more batteries.

15. The process according to claim 14, wherein the batteries are rechargeable batteries.

16. An electroluminescent light system prepared by the process of any one of claims 1 to 15.