We claim:

1. A photoresist sheet comprising:

a) a photosensitive layer comprising

i) from 20 to 80 weight percent ethylene-vinyl acetate copolymer,

ii) less than 20 percent polyvinyl acetate, and

iii) less than 40 percent of a photopolymer; and

b) a carrier sheet.

2. A photoresist sheet comprising:

a photosensitive layer comprising ethylene-vinyl acetate copolymer, polyvinyl acetate, and a photopolymer; and

a carrier sheet.

3. The photoresist sheet of any claims 1, 2, and 4 to 18, wherein the ethylene-vinyl acetate copolymer comprises from 40 to 70 percent of the photosensitive layer by dry weight of the film.

4. The photoresist sheet of any of claims 1 to 3 and 5 to 18, wherein the polyvinyl acetate comprises less than 50 percent of the photosensitive layer by dry weight of the film.

5. The photoresist sheet of any of claims 1 to 4 and 6 to 18, wherein the photopolymer comprises less than 30 percent by dry weight of the photosensitive layer by dry weight of the film.

6. The photoresist sheet of any of claims 1 to 5 and 7 to 18, wherein the photopolymer comprises less than 20 percent by dry weight of the photosensitive layer by dry weight of the film.

7. The photoresist of any of claims 1 to 6 and 8 to 18, wherein the photopolymer comprises polyvinyl alcohol photopolymer.

8. The photoresist sheet of any of claims 1 to 7 and 9 to 18, wherein the sheet has a surface configured and arranged for being secured to a substrate to be abrasively blasted, and said surface is substantially free of adhesive material.

9. The photoresist sheet of any of claims 1 to 8 and 10 to 18, wherein the sheet has a surface configured and arranged for being secured to a substrate to be abrasively blasted, and said surface is substantially free of pressure-sensitive adhesive material.

10. The photoresist sheet of any of claims 1 to 9 and 11 to 18, wherein the photoresist sheet is water developable.

11. The photoresist sheet of any of claims 1 to 10 and 12 to 18, wherein the photoresist sheet is less than 100 μm thick.

12. The photoresist sheet of any of claims 1 to 11 and 13 to 18, wherein the photoresist sheet does not contain a membrane layer.

13. The photoresist sheet of any of claims 1 to 12 and 14 to 18, wherein the photoresist sheet has an open hole resolution of 100 μm.

14. The photoresist sheet of claim any of claims 1 to 13 and 15 to 18, wherein the photoresist sheet has an open hole resolution of less than 75 μm.

15. The photoresist sheet of any of claims 1 to 14 and 16 to 18, wherein the photoresist sheet has an effective open hole resolution of 100 μm.

16. The photoresist sheet of any of claims 1 to 15 and 17 to 18, wherein the photoresist sheet has an effective open hole resolution of less than 75 μm.

17. The photoresist sheet of any of claims 1 to 16 and 18, wherein the photoresist sheet has a thickness of less than 100 μm an effective open hole resolution of less than 100 μm.

18. The photoresist sheet of claims 1 to 17, wherein the photoresist sheet has a thickness of less than 75 μm an effective open hole resolution of less than 75 μm.

19. A method of removal of a portion of a substrate, the method comprising:

a) providing a substrate;

b) providing a photosensitive film, the photosensitive film comprising ethylene-vinyl acetate copolymer, polyvinyl acetate, and a photopolymer;

c) applying the photosensitive film to the substrate such that the photosensitive film is not meaningfully adhered to the substrate;

d) applying pressure to the photosensitive film and substrate at a temperature of at least 30°C such that the photosensitive film is meaningfully adhered to the substrate;

e) exposing at least a portion of the photosensitive film to ultraviolet light;

f) removing a portion of the photosensitive film using water or an aqueous solution so as to expose substrate surfaces free of photosensitive material and adhesive material;

g) allowing the photosensitive film to dry such that the photosensitive film is adhered to the substrate with a peel strength that is at least five times the peel strength before heat and pressure were applied, and at least two times the peel strength after heat and pressure were applied but before removal of a portion of the photosensitive film using water or an aqueous solution; and

g) abrasive blasting of the exposed substrate surfaces.

We claim:

1. A photoresist sheet comprising:

a) a photosensitive layer comprising

i) from 20 to 80 weight percent ethylene-vinyl acetate copolymer,

ii) less than 20 percent polyvinyl acetate, and

iii) less than 40 percent of a photopolymer; and

b) a carrier sheet.

2. A photoresist sheet comprising:

a photosensitive layer comprising ethylene-vinyl acetate copolymer, polyvinyl acetate, and a photopolymer; and

a carrier sheet.

3. The photoresist sheet of either claim 1 or 2, wherein the ethylene-vinyl acetate copolymer comprises from 40 to 70 percent of the photosensitive layer by dry weight of the film.

4. The photoresist sheet of either claim 1 or 2, wherein the polyvinyl acetate comprises less than 50 percent of the photosensitive layer by dry weight of the film.

5. The photoresist sheet of either claim 1 or 2, wherein the photopolymer comprises less than 30 percent by dry weight of the photosensitive layer by dry weight of the film.

6. The photoresist sheet of either claim 1 or 2, wherein the photopolymer comprises less than 20 percent by dry weight of the photosensitive layer by dry weight of the film.

7. The photoresist of either claim 1 or 2, wherein the photopolymer comprises polyvinyl alcohol photopolymer.

8. The photoresist sheet of either claim 1 or 2, wherein the sheet has a surface configured and arranged for being secured to a substrate to be abrasively blasted, and said surface is substantially free of adhesive material.

9. The photoresist sheet of either claim 1 or 2, wherein the sheet has a surface configured and arranged for being secured to a substrate to be abrasively blasted, and said surface is substantially free of pressure-sensitive adhesive material.

10. The photoresist sheet of either claim 1 or 2, wherein the photoresist sheet is water developable.

11. The photoresist sheet of either claim 1 or 2, wherein the photoresist sheet is less than 100 μm thick.

12. The photoresist sheet of either claim 1 or 2, wherein the photoresist sheet does not contain a membrane layer.

13. The photoresist sheet of either claim 1 or 2, wherein the photoresist sheet has an open hole resolution of 100 μm.

14. The photoresist sheet of either claim 1 or 2, wherein the photoresist sheet has an open hole resolution of less than 75 μm.

15. The photoresist sheet of either claim 1 or 2, wherein the photoresist sheet has an effective open hole resolution of 100 μm.

16. The photoresist sheet of either claim 1 or 2, wherein the photoresist sheet has an effective open hole resolution of less than 75 μm.

17. The photoresist sheet of either claim 1 or 2, wherein the photoresist sheet has a thickness of less than 100 μm an effective open hole resolution of less than 100 μm.

18. The photoresist sheet of either claim 1 or 2, wherein the photoresist sheet has a thickness of less than 75 μm an effective open hole resolution of less than 75 μm.

19. A method of removal of a portion of a substrate, the method comprising:

a) providing a substrate;

b) providing a photosensitive film, the photosensitive film comprising ethylene-vinyl acetate copolymer, polyvinyl acetate, and a photopolymer;

c) applying the photosensitive film to the substrate such that the photosensitive film is not meaningfully adhered to the substrate;

d) applying pressure to the photosensitive film and substrate at a temperature of at least 30°C such that the photosensitive film is meaningfully adhered to the substrate;

e) exposing at least a portion of the photosensitive film to ultraviolet light;

f) removing a portion of the photosensitive film using water or an aqueous solution so as to expose substrate surfaces free of photosensitive material and adhesive material;

g) allowing the photosensitive film to dry such that the photosensitive film is adhered to the substrate with a peel strength that is at least five times the peel strength before heat and pressure were applied, and at least two times the peel strength after heat and pressure were applied but before removal of a portion of the photosensitive film using water or an aqueous solution; and

g) abrasive blasting of the exposed substrate surfaces.