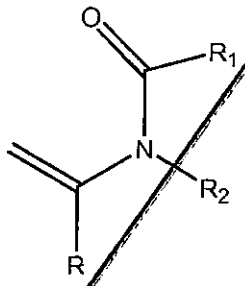
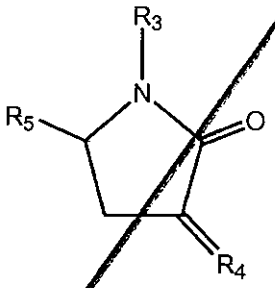
What is claimed is:

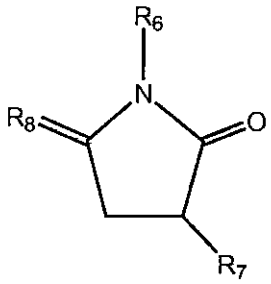
1. A silicone hydrogel formed from a reaction mixture comprising, (a) from about 30 to about 70 wt% of at least one slow reacting monomer selected from the group consisting of N-vinylamide monomer of Formula I, vinyl pyrrolidone of Formula II-IV, N-vinyl piperidone of Formula V:



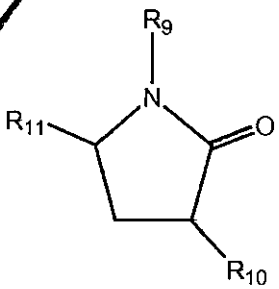
Formula I



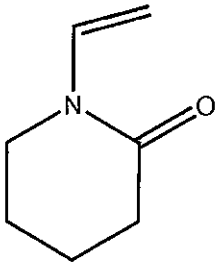
Formula II



Formula III



Formula IV



Formula V

wherein R is H or methyl;

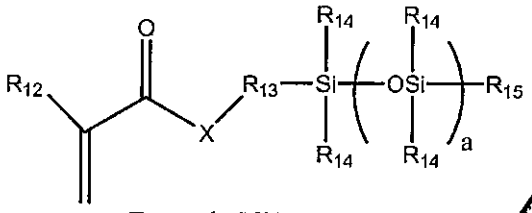
R_1, R_2, R_3, R_6, R_7, R_{10}, and R_{11} are independently selected from the group consisting of H, CH_3, CH_2CH_3, $CH_2CH_2CH_3$, $C(CH_3)_2$;

R_4 and R_8 are independently selected from the group consisting of CH_2, $CHCH_3$ and $C(CH_3)$;

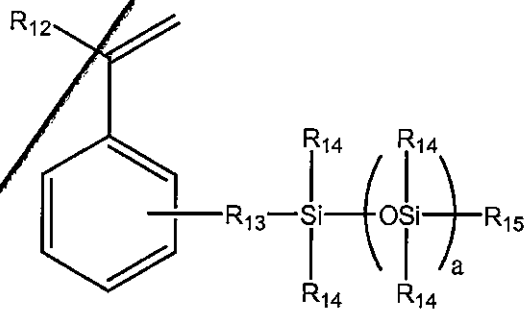
R_5 is selected from H, methyl, ethyl; and

R_9 is selected from $CH{=}CH_2$, $CCH_3{=}CH_2$, and $CH{=}CHCH_3$;

(b) at least one mono (meth)acryloxyalkyl polydialkylsiloxane monomer of Formula VII or the styryl polydialkylsiloxane monomer of Formula VIII:



Formula VII



Formula VIII

wherein R_{12} is H or methyl;

X is O or NR_{16};

Each R_{14} is independently a C_1 to C_4 alkyl which may be fluorine substituted, or phenyl;

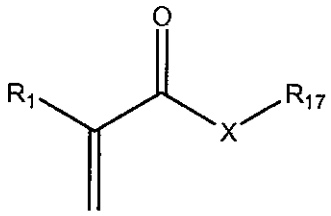
R_{15} is a C_1 to C_4 alkyl;

R_{13} is a divalent alkyl group, which may further be functionalized with a group selected from the group consisting of ether groups, hydroxyl groups, carbamate groups and combinations thereof;

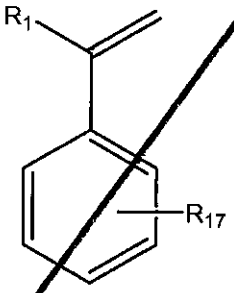
a is 3 to 50;

R_{16} is selected from H, C1-4, which may be further substituted with one or more hydroxyl groups;

(c) at least one hydroxyalkyl (meth)acrylate or (meth)acrylamide monomer of Formula IX or a styryl compound of Formula X



FORMULA IX



FORMULA X

wherein R_1 is H or methyl,

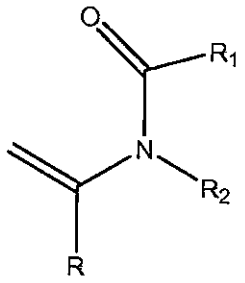
X is O or NR_{16}, R_{16} is a H, or C_1 to C_4 alkyl, which may be further substituted with at least one OH;

R_{17} is selected from C_2-C_4 mono or dihydroxy substituted alkyl, and poly(ethylene glycol) having 1-10 repeating units; wherein said at least one hydroxyalkyl (meth)acrylate or (meth)acrylamide monomer and said slow reacting monomer are present in mole percents which form a molar ratio between about 0.15 and 0.4; and

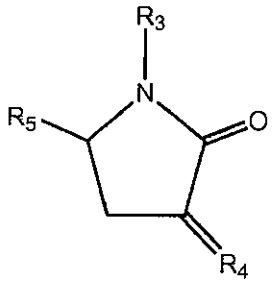
(d) at least one crosslinking monomer.

2. A silicone hydrogel formed from a reaction mixture comprising ,

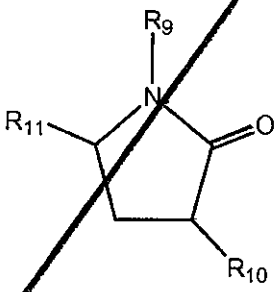
(a) from about 39 to about 70 wt% of at least one slow reacting monomer selected from the group consisting of N-vinylamide monomer of Formula I, vinyl pyrrolidone of Formula II or IV:



Formula I



Formula II



Formula IV

wherein R is H or methyl;

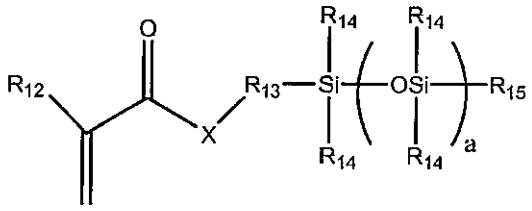
R_1, R_2, R_3, R_{10}, and R_{11} are independently selected from the group consisting of H, CH_3, CH_2CH_3 , $CH_2CH_2CH_3$, $C(CH_3)_2$;

R_4 is selected from the group consisting of CH_2, $CHCH_3$ and $C(CH_3)$;

R_5 is selected from H, methyl, ethyl; and

R_9 is selected from $CH=CH_2$, $CCH_3=CH_2$, and $CH=CHCH_3$;

(b) at least one mono (meth)acryloxyalkyl polydialkylsiloxane monomer of Formula VII:



Formula VII

wherein R_{12} is H or methyl;

X is O or NR_{16};

Each R_{14} is independently a C_1 to C_4 alkyl which may be fluorine substituted, or phenyl;

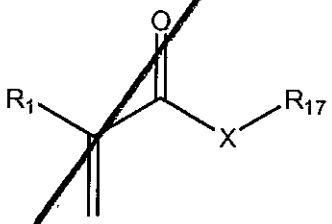
R_{15} is a C_1 to C_4 alkyl;

R_{13} is a divalent alkyl group, which may further be functionalized with a group selected from the group consisting of ether groups, hydroxyl groups, carbamate groups and combinations thereof;

a is 3 to 50;

R_{16} is selected from H, C_{1-4}, which may be further substituted with one or more hydroxyl groups;

(c) at least one hydroxyalkyl (meth)acrylate or (meth)acrylamide monomer of Formula IX



FORMULA IX

wherein R_1 is H or methyl,

X is O or NR_{16}, R_{16} is a H, or C_1 to C_4 alkyl, which may be further substituted with at least one OH;

R_{17} is selected from C_2-C_4 mono or dihydroxy substituted alkyl, and poly(ethylene glycol) having 1-10 repeating units; wherein said at least one hydroxyalkyl (meth)acrylate or (meth)acrylamide monomer and said slow reacting monomer are present in mole percents which form a molar ratio between about 0.15 and 0.4; and

(d) and at least one crosslinking monomer.

3. The silicone hydrogel of claim 1 or 2 wherein each R_3 is independently selected from ethyl and methyl groups.

4. The silicone hydrogel of claim 3 wherein all R_3 are methyl.

5. The silicone hydrogel of any preceding claim wherein R_{13} is selected from the group consisting of C_1-C_6 alkylene group which may be substituted with ether, hydroxyl and combinations thereof.

6. The silicone hydrogel of claim 5 wherein R_{13} is selected from the group consisting of C_1 or C_3-C_6 alkylene groups which may be substituted with ether, hydroxyl and combinations thereof.

7. The silicone hydrogel of any preceding claim wherein R_{16} is H or methyl.

8. The silicone hydrogel of any preceding claim wherein R_{12} and each R_{14} are methyl.

9. The silicone hydrogel of any one of claim 1 to 7 wherein at least one R_{14} is 3,3,3-trifluoropropyl.

10. The silicone hydrogel of any preceding claim wherein R_4 is methyl or 2-hydroxyethyl.

11. The silicone hydrogel of any preceding claim wherein a is 5 to 15.

12. The silicone hydrogel of claim any preceding claim wherein the slow-reacting hydrophilic monomer is selected from the vinyl pyrrolidone of Formula II or IV or the N-vinyl amide monomer of Formula I, having a total number of carbon atoms in R_1 and R_2 of 4 or less.

13. The silicone hydrogel of any preceding claim wherein the slow-reacting hydrophilic monomer is selected from a vinyl pyrrolidone of Formula III or IV and R_6 is methyl, R_7 is hydrogen, R_9 is $CH=CH_2$, R_{10} and R_{11} are H.

14. The silicone hydrogel of any of claim 1, 2, 5-9 or 11 wherein the slow-reacting hydrophilic monomer is selected from ethylene glycol vinyl ether (EGVE), di(ethylene glycol) vinyl ether (DEGVE), N-vinyl pyrrolidone (NVP), 1-methyl-3-methylene-2-pyrrolidone, 1-methyl-5-methylene-2-pyrrolidone, 5-methyl-3-methylene-2-pyrrolidone; 1-ethyl-5-methylene-2-pyrrolidone, N-methyl-3-methylene-2-pyrrolidone, 5-ethyl-3-methylene-2-pyrrolidone, 1-n-propyl-3-methylene-2-pyrrolidone, 1-n-propyl-5-methylene-2-pyrrolidone, 1-isopropyl-3-methylene-2-pyrrolidone, 1-isopropyl-5-methylene-2-pyrrolidone, N-vinyl-N-methyl acetamide (VMA), N-vinyl-N-ethyl acetamide, N-vinyl-N-ethyl formamide, N-vinyl formamide, N-vinyl acetamide, N-vinyl isopropylamide, allyl alcohol, N-vinyl caprolactam, N-2-hydroxyethyl vinyl carbamate, N-carboxy-ß-alanine N-vinyl ester; N-carboxyvinyl-β-alanine (VINAL), N-carboxyvinyl-α-alanine and mixtures thereof.

15. The silicone hydrogel of claim 14 wherein the slow-reacting hydrophilic monomer is selected from the group consisting of N-vinylpyrrolidone, N-vinylacetamide, 1-methyl-3-methylene-2-pyrrolidone, 1-methyl-5-methylene-2-pyrrolidone, 5-methyl-3-methylene-2-pyrrolidone, and mixtures thereof

16. The silicone hydrogel of claim 15 wherein the slow-reacting hydrophilic monomer is selected from the group consisting of NVP, VMA and 1-methyl-5-methylene-2-pyrrolidone.

17. The silicone hydrogel of claim 16 wherein the slow-reacting hydrophilic monomer comprises NVP.

18. The silicone hydrogel of any preceding claim wherein R_1 is H or methyl, X is oxygen and R is selected from C_2-C_4 mono or dihydroxy substituted alkyl, and poly(ethylene glycol) having 1-10 repeating units.

19. The silicone hydrogel of any of claims 1 to 17 wherein R_1 methyl, X is oxygen and R is selected from C_2-C_4 mono or dihydroxy substituted alkyl, and poly(ethylene glycol) having 2-20 repeating units.

20. The silicone hydrogel of claims 1-10 or 12-19 wherein a is 7 to 30.

21. The silicone hydrogel of any preceding claim whereinR$_{16}$ is H or methyl.

22. The silicone hydrogel of claims 1-4, 10, 12-19 wherein said monomethacryloxyalkylpolydimethylsiloxane methacrylate is selected from the group consisting of monomethacryloxypropyl terminated mono-n-butyl terminated polydimethylsiloxane, monomethacryloxypropyl terminated mono-n-methyl terminated polydimethylsiloxane, monomethacryloxypropyl terminated mono-n-butyl terminated polydiethylsiloxane, monomethacryloxypropyl terminated mono-n-methyl terminated polydiethylsiloxane, N-(2,3-dihydroxypropane)-N'-(propyl tetra(dimethylsiloxy) dimethylbutylsilane)acrylamide; α-(2-hydroxy-1-methacryloxypropyloxypropyl)-ω-butyl-octamethylpentasiloxane and mixtures thereof.

23. The silicone hydrogel of claim 22 wherein said monomethacryloxyalkylpolydimethylsiloxane methacrylate is selected from the group consisting of monomethacryloxypropyl terminated mono-n-butyl terminated polydimethylsiloxane, monomethacryloxypropyl terminated mono-n-methyl terminated polydimethylsiloxane, N-(2,3-dihydroxypropane)-N'-(propyl tetra(dimethylsiloxy) dimethylbutylsilane)acrylamide .

24. The silicone hydrogel of any preceding claim wherein R_1 is H or methyl, X is oxygen and R is selected from C_2-C_4 mono or dihydroxy substituted alkyl, and poly(ethylene glycol) having 1-10 repeating units.

25. The silicone hydrogel of any of claims 1 to 23 wherein R_1 methyl, X is oxygen and R is selected from C_2-C_4 mono or dihydroxy substituted alkyl, and poly(ethylene glycol) having 2-20 repeating units.

26. The silicone hydrogel of any preceding claim wherein R is 2-hydroxyethyl, 2,3-dihydroxypropyl, 2-hydroxypropyl.

27. The silicone hydrogel of any of claim 1 to 23 wherein said hydroxyalkyl monomer is selected from the group consisting of 2-hydroxyethyl (meth)acrylate, 3-hydroxypropyl (meth)acrylate, 2-hydroxypropyl (meth)acrylate, 1-hydroxypropyl-2-(meth)acrylate, 2-hydroxy-2-methyl-propyl (meth)acrylate, 3-hydroxy-2,2-dimethyl-propyl (meth)acrylate, 4-hydroxybutyl (meth)acrylate, glycerol (meth)acrylate, 2-hydroxyethyl (meth)acrylamide, polyethyleneglycol

monomethacrylate, bis-(2-hydroxyethyl) (meth)acrylamide, 2,3-dihydroxypropyl (meth)acrylamide, and mixtures thereof.

28. The silicone hydrogel of claim 27 wherein said hydroxyalkyl monomer is selected from the group consisting of 2-hydroxyethyl methacrylate, glycerol methacrylate, 2-hydroxypropyl methacrylate, hydroxybutyl methacrylate, 3-hydroxy-2,2-dimethyl-propyl methacrylate, and mixtures thereof.

29. The silicone hydrogel of claim 28 wherein said hydroxyalkyl monomer comprises 2-hydroxyethyl methacrylate, 3-hydroxy-2,2-dimethyl-propyl methacrylate, glycerol methacrylate and mixtures comprising them.

30. The silicone hydrogel of any preceding claim further comprising a Dk of at least about 60.

31. The silicone hydrogel of claim 30 further comprising a Dk of at least about 80.

32. The silicone hydrogel of any preceding claim further comprising a water content of at least about 55%.

33. The silicone hydrogel of claim 32 further comprising a water content of at least about 60%.

34. The silicone hydrogel of any preceding claim further comprising an advancing contact angle of less than about 80°.

35. The silicone hydrogel of any preceding claim further comprising a %haze of less than about 50%.

36. The silicone hydrogel of claim 35 further comprising a %haze of less than about 10%.

37. The silicone hydrogel of any preceding claim further comprising a modulus of less than about 120 psi.

38. The silicone hydrogel of any preceding claim further comprising a modulus of about 100 psi or less.

39. The silicone hydrogel of claim 1 to 26 or 30 to 38 wherein the hydroxyalkyl monomer comprises GMMA and the reaction mixture further comprises t-amyl alcohol as a diluent.

40. The silicone hydrogel of to 26 or 30 to 38 wherein said reaction mixture further comprises at least one slow reacting crosslinker and at least one fast reacting crosslinker.

41. The silicone hydrogel of claim 40 wherein said at least one slow reacting crosslinker and at least one fast reacting crosslinker are each present in said reaction mixture in amounts between about 0.3 to about 2.0 mmol/100 g of polymerizable components.

42. The silicone hydrogel of claim 41 wherein said at least one slow reacting crosslinker and at least one fast reacting crosslinker are each present in said reaction mixture in amounts between about 0.1 to about 0.2 wt%.

43. The silicone hydrogel of any preceding claim wherein all components which comprise at least one hydroxyl group and a fast reacting reactive group are present in a concentration sufficient to provide a molar ratio of hydroxyl to silicon between about 0.16 and about 0.4.

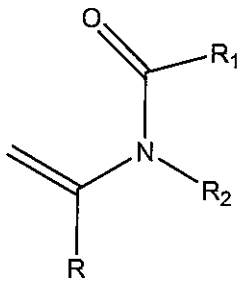
44. The silicone hydrogel of any preceding claim wherein said hydroxyalkyl (meth)acrylate or (meth)acrylamide monomers are present in a concentration sufficient to provide a HO:Si ratio of 0.13 to 0.35.

45. The silicone hydrogel of claims 1or 2 wherein said reaction mixture comprises about 37 to about 70 wt% slow reacting monomer.

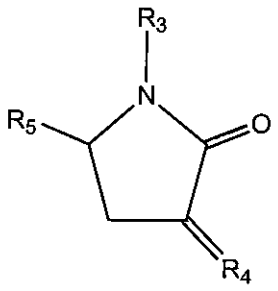
Claims

1. A silicone hydrogel formed from a reaction mixture comprising,

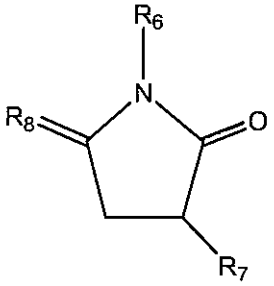
(a) from about 37 to 70 wt% of at least one slow reacting monomer selected from the group consisting of N-vinylamide monomers of Formula I, vinyl pyrrolidones of Formula II-IV, and N-vinyl piperidones of Formula V:



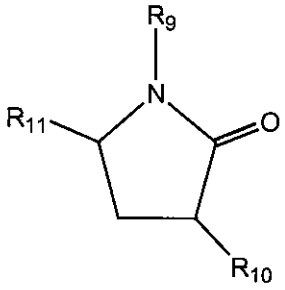
Formula I



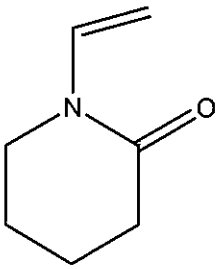
Formula II



Formula III



Formula IV



Formula V

wherein in Formula I through V R is H or methyl;

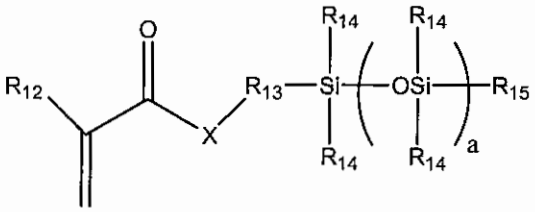
R_1, R_2, R_3, R_6, R_7, R_{10}, and R_{11} are independently selected from the group consisting of H, CH_3, CH_2CH_3, $CH_2CH_2CH_3$, $C(CH_3)_2$;

R_4 and R_8 are independently selected from the group consisting of CH_2, $CHCH_3$ and $C(CH_3)$;

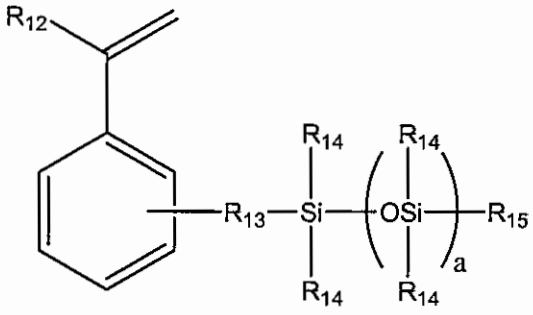
R_5 is selected from H, methyl, ethyl; and

R_9 is selected from $CH{=}CH_2$, $CCH_3{=}CH_2$, and $CH{=}CHCH_3$;

(b) at least one mono (meth)acryloxyalkyl polydialkylsiloxane monomer of Formula VII or the styryl polydialkylsiloxane monomer of Formula VIII:



Formula VII



Formula VIII

wherein in Formula VI through VIII R_{12} is H or methyl;

X is O or NR_{16};

each R_{14} is independently a C_1 to C_4 alkyl which may be fluorine substituted, or phenyl;

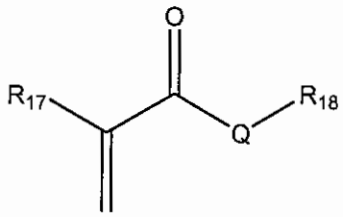
R_{15} is a C_1 to C_4 alkyl;

R_{13} is a divalent alkyl group, which may further be functionalized with a group selected from the group consisting of ether groups, hydroxyl groups, carbamate groups and combinations thereof;

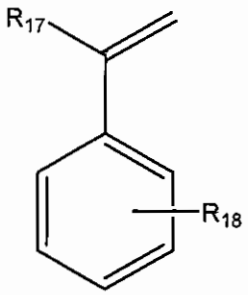
a is 3 to 50;

R_{16} is selected from H, C_1-C_4, which may be further substituted with one or more hydroxyl groups;

(c) at least one hydroxyalkyl (meth)acrylate or (meth)acrylamide monomer of Formula IX or a styryl compound of Formula X



FORMULA IX



FORMULA X

wherein R_{17} is H or methyl,

Q is O or NR_{16}, R_{16} is a H, or C_1 to C_4 alkyl, which may be further substituted with at least one OH;

R_{18} is selected from C_2-C_4 mono or dihydroxy substituted alkyl, and poly(ethylene glycol) having 1-10 repeating units; wherein said at least one hydroxyalkyl (meth)acrylate or (meth)acrylamide monomer and said slow reacting

monomer are present in mole percents which form a molar ratio between 0.15 and 0.4; and

(d) at least one crosslinking monomer.

2. The silicone hydrogel of claim 1 wherein each R_3 is independently selected from ethyl and methyl groups.

3. The silicone hydrogel of claim 1 wherein all R_3 are methyl.

4. The silicone hydrogel of claim 1 wherein R_{13} is selected from the group consisting of C_1-C_6 alkylene group which may be substituted with ether, hydroxyl and combinations thereof.

5. The silicone hydrogel of claim 1 wherein R_{13} is selected from the group consisting of C_1 or C_3-C_6 alkylene groups which may be substituted with ether, hydroxyl and combinations thereof.

6. The silicone hydrogel of claim 1 wherein R_{16} is H or methyl.

7. The silicone hydrogel of claim 1 wherein R_{12} and each R_{14} are methyl.

8. The silicone hydrogel of claim 1 wherein at least one R_{14} is 3,3,3-trifluoropropyl.

9. The silicone hydrogel of claim 1 wherein R_{16} is methyl or 2-hydroxyethyl.

10. The silicone hydrogel of claim 1 wherein a is 5 to 15.

11. The silicone hydrogel of claim 1 wherein the slow-reacting hydrophilic monomer is selected from the vinyl pyrrolidone of Formula II or IV or the N-vinyl amide

monomer of Formula I, having a total number of carbon atoms in R_1 and R_2 of 4 or less.

12. The silicone hydrogel of claim 1 wherein the slow-reacting hydrophilic monomer is selected from a vinyl pyrrolidone of Formula III or IV and R_6 is methyl, R_7 is hydrogen, R_9 is $CH=CH_2$, R_{10} and R_{11} are H.

13. The silicone hydrogel of claim 1 wherein the slow-reacting hydrophilic monomer is selected from ethylene glycol vinyl ether (EGVE), di(ethylene glycol) vinyl ether (DEGVE), N-vinyl pyrrolidone (NVP), 1-methyl-3-methylene-2-pyrrolidone, 1-methyl-5-methylene-2-pyrrolidone, 5-methyl-3-methylene-2-pyrrolidone; 1-ethyl-5-methylene-2-pyrrolidone, N-methyl-3-methylene-2-pyrrolidone, 5-ethyl-3-methylene-2-pyrrolidone, 1-n-propyl-3-methylene-2-pyrrolidone, 1-n-propyl-5-methylene-2-pyrrolidone, 1-isopropyl-3-methylene-2-pyrrolidone, 1-isopropyl-5-methylene-2-pyrrolidone, N-vinyl-N-methyl acetamide (VMA), N-vinyl-N-ethyl acetamide, N-vinyl-N-ethyl formamide, N-vinyl formamide, N-vinyl acetamide, N-vinyl isopropylamide, allyl alcohol, N-vinyl caprolactam, N-2-hydroxyethyl vinyl carbamate, N-carboxy-ß-alanine N-vinyl ester; N-carboxyvinyl-β-alanine (VINAL), N-carboxyvinyl-α-alanine and mixtures thereof.

14. The silicone hydrogel of claim 1 wherein the slow-reacting hydrophilic monomer is selected from the group consisting of N-vinylpyrrolidone, N-vinylacetamide, 1-methyl-3-methylene-2-pyrrolidone, 1-methyl-5-methylene-2-pyrrolidone, 5-methyl-3-methylene-2-pyrrolidone, and mixtures thereof.

15. The silicone hydrogel of claim 1 wherein the slow-reacting hydrophilic monomer is selected from the group consisting of NVP, VMA and 1-methyl-5-methylene-2-pyrrolidone.

16. The silicone hydrogel of claim 1 wherein the slow-reacting hydrophilic monomer comprises NVP.

17. The silicone hydrogel of claim 1 wherein R_{17} is H or methyl, Q is oxygen and R_{18} is selected from C_2-C_4 mono or dihydroxy substituted alkyl, and poly(ethylene glycol) having 1-10 repeating units.

18. The silicone hydrogel of claim 1 wherein R_{17} methyl, Q is oxygen and R_{18} is selected from C_2-C_4 mono or dihydroxy substituted alkyl, and poly(ethylene glycol) having 2-20 repeating units.

19. The silicone hydrogel of claim 1 wherein at least one R_{14} is 3,3,3-trifluoropropyl.

20. The silicone hydrogel of claim 1 wherein R_{13} is selected from C_1-C_6 alkylene groups which may be substituted with ether, hydroxyl and combinations thereof.

21. The silicone hydrogel of claim 1 wherein R_{13} is selected from C_1 or C_{3-6} alkylene groups which may be substituted with ether, hydroxyl and combinations thereof.

22. The silicone hydrogel of claim 1 wherein a is 7 to 30.

23. The silicone hydrogel of claim 1 wherein R_{16} is H or methyl.

24. The silicone hydrogel of claim 1 wherein said monomethacryloxyalkylpolydimethylsiloxane methacrylate is selected from the group consisting of monomethacryloxypropyl terminated mono-n-butyl terminated polydimethylsiloxane, monomethacryloxypropyl terminated mono-n-methyl terminated polydimethylsiloxane, monomethacryloxypropyl terminated mono-n-butyl terminated polydiethylsiloxane, monomethacryloxypropyl terminated mono-n-methyl terminated polydiethylsiloxane, N-(2,3-dihydroxypropane)-N'-(propyl tetra(dimethylsiloxy)

dimethylbutylsilane)acrylamide; α-(2-hydroxy-1-methacryloxypropyloxypropyl)-ω-butyl-octamethylpentasiloxane and mixtures thereof.

25. The silicone hydrogel of claim 1 wherein said monomethacryloxyalkylpolydimethylsiloxane methacrylate is selected from the group consisting of monomethacryloxypropyl terminated mono-n-butyl terminated polydimethylsiloxane, monomethacryloxypropyl terminated mono-n-methyl terminated polydimethylsiloxane, N-(2,3-dihydroxypropane)-N'-(propyl tetra(dimethylsiloxy) dimethylbutylsilane)acrylamide.

26. The silicone hydrogel of claim 1 wherein R_{17} is H or methyl, Q is oxygen and R_{18} is selected from C_2-C_4 mono or dihydroxy substituted alkyl, and poly(ethylene glycol) having 1-10 repeating units.

27. The silicone hydrogel of claim 1 wherein R_{17} methyl, Q X is oxygen and R_{18} is selected from C_2-C_4 mono or dihydroxy substituted alkyl, and poly(ethylene glycol) having 2-20 repeating units.

28. The silicone hydrogel of claim 1 wherein R_{18} is 2-hydroxyethyl, 2,3-dihydroxypropyl, 2-hydroxypropyl.

29. The silicone hydrogel of claim 1 wherein said hydroxyalkyl monomer is selected from the group consisting of 2-hydroxyethyl (meth)acrylate, 3-hydroxypropyl (meth)acrylate, 2-hydroxypropyl (meth)acrylate, 1-hydroxypropyl-2-(meth)acrylate, 2-hydroxy-2-methyl-propyl (meth)acrylate, 3-hydroxy-2,2-dimethyl-propyl (meth)acrylate, 4-hydroxybutyl (meth)acrylate, glycerol (meth)acrylate, 2-hydroxyethyl (meth)acrylamide, polyethyleneglycol monomethacrylate, bis-(2-hydroxyethyl) (meth)acrylamide, 2,3-dihydroxypropyl (meth)acrylamide, and mixtures thereof.

30. The silicone hydrogel of claim 1 wherein said hydroxyalkyl monomer is selected from the group consisting of 2-hydroxyethyl methacrylate, glycerol

methacrylate, 2-hydroxypropyl methacrylate, hydroxybutyl methacrylate, 3-hydroxy-2,2-dimethyl-propyl methacrylate, and mixtures thereof.

31. The silicone hydrogel of claim 1 wherein said hydroxyalkyl monomer comprises 2-hydroxyethyl methacrylate, 3-hydroxy-2,2-dimethyl-propyl methacrylate, glycerol methacrylate and mixtures comprising them.

32. The silicone hydrogel of claim 1 further comprising a Dk of at least about 60.

33. The silicone hydrogel of claim 1 further comprising a Dk of at least about 80.

34. The silicone hydrogel of claim 1 further comprising a water content of at least about 55%.

35. The silicone hydrogel of claim 1 further comprising a water content of at least about 60%.

36. The silicone hydrogel of claim 1 further comprising an advancing contact angle of less than about 80°.

37. The silicone hydrogel of claim 1 further comprising a %haze of less than about 50%.

38. The silicone hydrogel of claim 1 further comprising a %haze of less than about 10%.

39. The silicone hydrogel of claim 1 further comprising a modulus of less than about 120 psi.

40. The silicone hydrogel of claim 1 further comprising a modulus of about 100 psi or less.

41. The silicone hydrogel of claim 1 wherein the hydroxyalkyl monomer comprises 2,3-dihydroxypropyl methacrylate and the reaction mixture further comprises t-amyl alcohol as a diluent.

42. The silicone hydrogel of claim 1 wherein said reaction mixture further comprises at least one slow reacting crosslinker and at least one fast reacting crosslinker.

43. The silicone hydrogel of claim 42 wherein said at least one slow reacting crosslinker and at least one fast reacting crosslinker are each present in said reaction mixture in amounts between about 0.3 to about 2.0 mmol/100 g of polymerizable components.

44. The silicone hydrogel of claim 42 wherein said at least one slow reacting crosslinker and at least one fast reacting crosslinker are each present in said reaction mixture in amounts between about 0.1 to about 0.2 wt%.

45. The silicone hydrogel of claim 1 wherein all components which comprise at least one hydroxyl group and a fast reacting reactive group are present in a concentration sufficient to provide a molar ratio of hydroxyl to silicon between about 0.16 and about 0.4.

46. The silicone hydrogel of claim 1 wherein said hydroxyalkyl (meth)acrylate or (meth)acrylamide monomers are present in a concentration sufficient to provide a HO:Si ratio of 0.13 to 0.35.