about 16 to about 128 hydroxyl groups per dendritic polymer molecule.

14. The coating composition of claim 13, wherein said hydroxyl functional dendritic polymer has a theoretical number of about 64 hydroxyl groups per dendritic polymer molecule.

15. The coating composition of any one of the preceding claims, wherein said one or more cross-linkers are selected from the group consisting of: polyisocyanates, blocked polyisocyanates, melamine formaldehyde resins, epoxy resins, carbodiimide compounds, aziridine-functional compounds.

16. The coating composition of any one of the preceding claims, wherein the coating composition is a 1K coating composition wherein said dendritic polymer, reactive diluent and said cross-linker are provided in a single component.

17. The coating composition of claim 16, wherein said cross-linkers are melamine resins and/or blocked polyisocyanate compounds.

18. The coating composition of any one of the preceding claims, further comprising an acrylate functional dendritic polymer.

19. The coating composition of any one of the preceding claims, further comprising one or more silane compounds.

20. The coating composition of claim 19, wherein said silane compounds are bifunctional organosilanes.

21. The coating composition of any one of the preceding claims, further comprising a non-dendritic polymer selected from polyester, polyurethane, polyacrylate, polyol, polyimide, co-polymers and polymer blends thereof.

22. A two component (2K) coating composition, comprising:

(i) one or more functionalized dendritic polymers; and

(ii) a reactive diluent that is capable of being chemically coupled to the functional groups of the dendritic polymers, wherein when said dendritic polymer is coupled to said reactive diluent in the presence of a cross-linker, a polymerized solid is formed at a concentration of at least 55% by weight in a liquid medium,

in one component; and

(iii) one or more cross-linkers in the other component.

23. The two component (2K) coating composition of claim 22, wherein said cross-linkers are ~~melamine resins~~polyisocyanates.

24. A method of preparing a high solids, two-part (2K) coating composition, said method comprising the steps of:

(a) providing a first component comprising:

(i) one or more functionalized dendritic polymers;

(ii) a reactive diluent that is capable of being chemically coupled to the functional groups of the dendritic

polymers, wherein when said dendritic polymer is coupled to said reactive diluent in the presence of a cross-linker, a polymerized solid is formed at a concentration of at least 55% by weight in a liquid medium;

(b) providing a second component comprising;

(i) one or more cross-linkers;

(c) mixing said first and second components to form said coating composition.

25. The method of claim 24, said liquid medium is an organic or aqueous solvent.

26. The method of any one of claims 24 to 25, wherein said liquid medium is absent and wherein the concentration of the polymerized solid is about 100%.

27. A method of preparing a high solids, single component (1K) coating composition, said method comprising the steps of:

(a) providing a polymer composition comprising:

(i) one or more functionalized dendritic polymers;

(ii) a reactive diluent that is capable of being chemically coupled to the functional groups of the dendritic polymers, wherein when said dendritic polymer is coupled to said reactive diluent in the presence of a cross-linker, a polymerized solid is formed at a concentration of at least 55% by weight in a liquid medium; and

(iii) one or more melamine resins and/or blocked cross-linkers.