CLAIMS

1. A coating composition comprising:
at least one polyamideimide resin;
at least one aprotic dialkylamide solvent selected from a group consisting of N-acetyl morpholine, diethyl acetamide, di-N-propyl acetamide, N-formyl morpholine, diacetylpiperazine, N,N-diisopropylacetamide, di-N-butylacetamide, di-N-propylacetamide and N-propionyl morpholine; and
at least one co-solvent is selected from a group consisting of methyl acetate, n-propyl acetate, t-butyl acetate, iso-butyl acetate, ethyl acetate, isopropyl acetate, methyl lactate, ethyl lactate, n-propyl lactate, isopropyl lactate, n-butyl lactate, isobutyl lactate, t-butyl lactate, cyclohexanone, cyclopentanone, n-butyl acetate, methyl alcohol, ethyl alcohol, isopropyl alcohol, ϵ-caprolactone and methylcyclohexane;
wherein a ratio of all aprotic dialkylamide solvents to all co-solvents is in a range from 95:5 to 55:4.

2. The coating composition of claim 1, wherein the at least one aprotic dialkylamide solvent is N-acetyl morpholine.

3. The coating composition of claim 1, wherein the at least one aprotic dialkylamide solvent is N-formyl morpholine.

4. The coating composition of claim 1, wherein the at least one co-solvent is selected from a group consisting of methyl acetate, n-propyl acetate, ethyl acetate, isopropyl acetate, ethyl lactate, n-propyl lactate, n-butyl lactate, cyclohexanone, cyclopentanone, n-butyl acetate, isopropyl alcohol, ϵ-caprolactone and methylcyclohexane.

5. The coating composition of claim 1, wherein a ratio of all aprotic dialkylamide solvents to all co-solvents is in a range from 90:10 to 70:30.

6. The coating composition of claim **1**, wherein a ratio of the total of quantity of all aprotic dialkylamide solvents plus all co-solvents to polyamideimide is in a range from 85:15 to 60:40.

7. The coating composition of claim **1**, wherein a ratio of the total of quantity of all aprotic dialkylamide solvents plus all co-solvents to polyamideimide is in a range from 80:20 to 65:35.

8. The coating composition of claim **1**, wherein the polyamideimide resin is a product of 4,4'-methylene diphenyldiisocyanate and trimellitic anhydride.

9. A coating composition comprising:

at least one polyamideimide resin;

at least one aprotic dialkylamide solvent selected from a group consisting of N-acetyl morpholine, diethyl acetamide, di-N-propyl acetamide, N-formyl morpholine, diacetylpiperazine, N,N-diisopropylacetamide, di-N-butylacetamide, di-N-propylacetamide and N-propionyl morpholine; and

at least one co-solvent is selected from a group consisting of methyl acetate, n-propyl acetate, t-butyl acetate, iso-butyl acetate, ethyl acetate, isopropyl acetate, methyl lactate, ethyl lactate, n-propyl lactate, isopropyl lactate, n-butyl lactate, isobutyl lactate, t-butyl lactate, cyclohexanone, cyclopentanone, n-butyl acetate, methyl alcohol, ethyl alcohol, isopropyl alcohol, anisol, ϵ-caprolactone, methylcyclohexane, N-n-butylpyrrolidone, N-isobutylpyrrolidone, N-t-butylpyrrolidone, N-n-pentylpyrrolidone, N-(methyl-substituted butyl) pyrrolidone, ring-methyl-substituted N-propyl pyrrolidone, ring-methyl-substituted N-butyl pyrrolidone,

N-(methoxypropyl) pyrrolidone, N-(methoxypropyl) pyrrolidone, 1,5-dimethyl-pyrrolidone and isomers thereof, dipropylene glycol dimethyl ether, a mixture including ethyl lactate and an ethyl ester derived from soya bean oil or corn oil, poly(ethylene glycol) dimethyl ether, diethylene glycol diethyl ether, 1,3-dioxolane, dimethyl sulphoxide, methyl-5-(di methylamino)-2-methyl-5-oxopentanoate, TamiSolve® NxG, propylene glycol methyl ether acetate, choline hydroxide, propylene carbonate, diethyl carbonate, glycerine carbonate, dimethylisopropylamine and isomers thereof, dihydrolevo glucosenone, octyl pyrrolidone and isomers thereof, N-methyl-ϵ-caprolactam, N,N,N', N'-tetramethylguanidine, 2-pyrrolidone, 2,2-dimethyl dioxolane-4-methanol and isomers thereof, Rhodiasolv® RPDE-K, Rhodiasolv® PolarClean, Rhodiasolv® Infinity, Rhodiasolv® IRIS, diethylethanolamine, γ-hexalactone, tetrahydrofuran, furfuryl alcohol, acetophenone, cumene, cyclopentylmethyl ether, methyl-tetrahydrofuran, N-octyl pyrrolidone, dioxalane, methylethylketone, dimethylsuccinate, N-methylcaprolactame and N-cyclohexylpyrrolidone;

wherein a ratio of all aprotic dialkylamide solvents to all co-solvents is in a range from 95:5 to 55:45.

10. The coating composition of claim **9**, wherein the at least one aprotic dialkylamide solvent is N-acetyl morpholine.

11. The coating composition of claim **9**, wherein the at least one aprotic dialkylamide solvent is N-formyl morpholine.

12. The coating composition of claim **9**, wherein a ratio of all aprotic dialkylamide solvents to all co-solvents is in a range from 90:10 to 70:30.

13. The coating composition of claim **9**, wherein a ratio of the total of quantity of all aprotic dialkylamide solvents plus all co-solvents to polyamideimide is in a range from 85:15 to 60:40.

14. The coating composition of claim **9**, wherein a ratio of the total of quantity of all aprotic dialkylamide solvents plus all co-solvents to polyamideimide is in a range from 80:20 to 65:35.

15. The coating composition of claim **9**, wherein the polyamideimide resin is a product of 4,4'-methylene diphenyldiisocyanate and trimellitic anhydride.