What is claimed is:

1. A coating composition comprising:

a poly(methyl methacrylate) polymer or copolymer having a weight average molecular weight of at least 50,000 grams per mole;

monomer comprising at least one of an alkylene diacrylate, alkylene dimethacrylate, cycloalkylene diacrylate, or cycloalkylenedimethacrylate, wherein the at least one of an alkylene diacrylate, alkylene dimethacrylate, cycloalkylene diacrylate, or cycloalkylenedimethacrylate provides at least 80 percent by weight of the monomer; and

a stabilizer against ultraviolet light, wherein the stabilizer comprises at least one of a UV absorber or a hindered amine light stabilizer.

2. The coating composition of claim 1, wherein the poly(methyl methacrylate) polymer or copolymer has a weight average molecular weight of at least 75,000 grams per mole, 100 grams per mole, or 120 grams per mole.

3. The coating composition of claim 1 or 2, wherein the poly(methyl methacrylate) polymer or copolymer is poly(methyl methacrylate) or a copolymer of methyl methacrylate and at least one of a C_2-C_8 alkyl acrylate or methacrylate or a C_3-C_8 cycloalkyl acrylate or methacrylate.

4. The coating composition of claim 3, wherein the poly(methyl methacrylate) polymer or copolymer is a copolymer of methyl methacrylate and at least one of ethyl acrylate, ethyl methacrylate, butyl acrylate, or butyl methacrylate.

5. The coating composition of any one of claims 1 to 4, wherein the monomer comprises at least one of a C_{2-10}alkylene diacrylate, C_{2-10}alkylene dimethacrylate, C_{4-6}cycloalkylene diacrylate, or C_{4-6}cycloalkylenedimethacrylate.

46. The coating composition of any one of claims 1 to ~~3~~5, wherein the monomeric alkylene diacrylate or a monomeric alkylene dimethacrylate comprises at least one of 1,6-hexanediol diacrylate, 1,6-hexanediol dimethacrylate, or neopentyl glycol dimethacrylate.

~~5~~7. The coating composition of any one of claims 1 to 46, further comprising a silicone-containing acrylic copolymer.

8. The coating composition of any one of claims 1 to 6, further comprising a silicone-containing acrylic monomer.

~~6~~9. The coating composition of any one of claims 1 to ~~5~~8, further comprising silica particles having an average particle size of up to 500 nanometers.

~~7~~10. The coating composition of claim ~~6~~9, wherein the silica particles are surface-modified silica particles modified with poly(methyl methacrylate).

~~8~~11. The coating composition of any one of claims 1 to ~~7~~10, wherein the ratio of the monomer comprising at least one of alkylene diacrylate, alkylene dimethacrylate, cycloalkylene diacrylate, or cycloalkylenedimethacrylate to the poly(methyl methacrylate) polymer or copolymer is in a range from 0.75:1 to 10:1.

~~9~~12. The coating composition of any one of claims 1 to ~~8~~11, further comprising at least one of organic solvent or a photoinitiator.

~~10~~13. The coating composition of any one of claims 1 to ~~9~~12, wherein the stabilizer against ultraviolet light comprises at least one of a benzotriazole, a benzophenone, a triazine, or a hindered-amine light stabilizer.

~~11~~14. An article comprising a polymeric substrate and a first coating on a surface of the polymeric substrate, wherein the first coating is obtained by curing the coating composition of any one of claims 1 to ~~10~~13.

~~12~~15. The article of claim ~~11~~14, wherein the polymeric substrate is a thermoplastic comprising at least one of an acrylic, a polyester, a polycarbonate, or a blend of polyvinylidene fluoride and poly(methyl methacrylate).

16. The article of claim 15, wherein the substrate comprises polyethylene terephthalate.

17. The article of any one of claims 14 to 16, wherein the surface of the substrate is primed.

18. The article of claim 17, wherein the surface of the substrate is nitrogen-corona treated.

19. The article of any one of claim 14 to 18, wherein the substrate is an acrylic mirror film, a multi-layer optical film, a lens, retroreflective sheeting, or a window film.

20. The article of claim 19, wherein the substrate is a multi-layer optical film.

~~13~~21. The article of any one of claim 14 to 16~~of claim 12~~, wherein the polymeric substrate comprises poly(methyl methacrylate), and wherein the surface of the polymeric substrate is nitrogen corona-treated.

~~14~~22. The article of any one of claims ~~11~~ 14 to ~~13~~21, further comprising a second coating disposed on the first coating, wherein the second coating comprises silica particles having an average particle size of up to 500 nanometers.

~~15. The article of claim 14, wherein at least a portion of the silica particles have an average particle size of up to 40 nanometers.~~

23. The article of any one of claims 14 to 22, wherein the first coating has a thickness of at least 8 micrometers.

24. The article of any one of claims 14 to 23, wherein the first coating is transmissive to visible and infrared light.

25. The article of any one of claims 14 to 24, wherein the article is exposed to sunlight.