CLAIMS

1. Brominated anionic styrenic polymer having (i) a bromine content of at least about 66 wt%, (ii) a GPC weight average molecular weight in the range of about 8000 to about 50,000, and (iii) an initial Hunter Solution ΔE Color Value of 5 or less, determined as a 10 wt% solution in chlorobenzene using a transmission cell having a 20mm transmission length.

2. Brominated anionic styrenic polymer as in Claim 1 wherein said GPC weight average molecular weight is in the range of 10,000 to 30,000.`

3. Brominated anionic styrenic polymer as in Claim 1 wherein said GPC weight average molecular weight is in the range of 10,000 to 20,000.

4. Brominated anionic styrenic polymer as in Claim 1 wherein said polymer has a thermal stability in the 320°C Thermal Stability Test of 300 ppm of HBr or less.

5. Brominated anionic styrenic polymer as in Claim 1 wherein said polymer has a thermal stability in the 320°C Thermal Stability Test of 125 ppm of HBr or less.

6. Brominated anionic styrenic polymer as in Claim 1 wherein said polymer has an initial Hunter Solution ΔE Color Value of 3 or less.

7. Brominated anionic styrenic polymer as in Claim 1 wherein said polymer has a thermal stability in the 320°C Thermal Stability Test of 300 ppm of HBr or less, wherein said polymer has a GPC weight average molecular weight in the range of 10,000 to 30,000, and wherein said polymer has an initial Hunter Solution ΔE Color Value of 5 or less.

8. Brominated anionic styrenic polymer as in Claim 1 wherein said polymer has a thermal stability in the 320°C Thermal Stability Test of 125 ppm of HBr or less, wherein said polymer has a GPC weight average molecular weight in the range of 10,000 to 20,000, and wherein said polymer has an initial Hunter Solution ΔE Color Value of 3 or less.

9. Brominated anionic styrenic polymer as in any of Claims ~~1-5 or 7-8~~ wherein said polymer is brominated anionic polystyrene having a bromine content in the range of 67 to 70 wt%.

°°°

17. Brominated anionic styrenic polymer as in Claim 10 wherein the percentage of aromatic rings having ortho bromine atoms thereon is at least 5% less than the percentage of aromatic rings having ortho bromine atoms thereon in said brominated styrenic polymers formed from the same components with a feed time of 30 minutes or longer, and wherein said polymer has a thermal stability in the 320°C Thermal Stability Test of 300 ppm of HBr or less.

18. Brominated anionic styrenic polymer as in Claim 10 wherein said polymer has a thermal stability in the 320°C Thermal Stability Test of 125 ppm of HBr or less and wherein said polymer has an initial Hunter Solution ΔE Color Value of 3 or less.

19. Brominated anionic styrenic polymer as in any of Claims ~~1-5, 7-8~~, 10, 11, 13-15, 16-17, or 18 wherein said polymer has a bromine content in the range of 67 to 70 wt%.

20. Brominated anionic styrenic polymer as in any of Claims ~~1-5, 7-8~~, 10-15, 16-17, or 18 wherein said polymer is brominated anionic polystyrene.

21. Brominated anionic styrenic polymer as in any of Claims 10-15, 16-17, or 18 wherein said polymer has a GPC weight average molecular weight in the range of 8,000 to 50,000.

22. Brominated anionic styrenic polymer as in Claim 21 wherein said polymer has a GPC weight average molecular weight in the range of 10,000 to 30,000.

23. Brominated anionic styrenic polymer as in Claim 21 wherein said polymer has a GPC weight average molecular weight in the range of 10,000 to 20,000.

24. A flame retardant composition which comprises a blend of at least one thermoplastic polymer and a flame retardant amount of at least one brominated anionic styrenic polymer as in any of Claims ~~1-5, 7-8~~, 9-15, 16-17, or 18-23.

25. A composition as in Claim 24 wherein said thermoplastic polymer is a thermoplastic styrenic polymer, a thermoplastic acrylonitrile-butadiene-styrene polymer, a thermoplastic polyester, or a thermoplastic polyamide.

26. A method of flame retarding a thermoplastic polymer or a thermoset resin, which method comprises blending therewith or applying a coating thereon of at least one brominated styrenic polymer as in any of Claims ~~1-5, 7-8~~, 9-15, 16-17, or 18-23.

27. Brominated anionic styrenic polymer wherein said polymer has an initial Hunter Solution ΔE Color value in the range of up to 1.50, determined as a 10 wt% solution in chlorobenzene using a transmission cell having a 20-mm transmission length.

°°°

CLAIMS

1. Brominated anionic styrenic polymer having (i) a bromine content of at least about 66 wt%, (ii) a GPC weight average molecular weight in the range of about 8000 to about 50,000, and (iii) an initial Hunter Solution ΔE Color Value of 5 or less, determined as a 10 wt% solution in chlorobenzene using a transmission cell having a 20mm transmission length.

2. Brominated anionic styrenic polymer as in Claim 1 wherein said GPC weight average molecular weight is in the range of 10,000 to 30,000.`

3. Brominated anionic styrenic polymer as in Claim 1 wherein said GPC weight average molecular weight is in the range of 10,000 to 20,000.

4. Brominated anionic styrenic polymer as in Claim 1 wherein said polymer has a thermal stability in the 320°C Thermal Stability Test of 300 ppm of HBr or less.

5. Brominated anionic styrenic polymer as in Claim 1 wherein said polymer has a thermal stability in the 320°C Thermal Stability Test of 125 ppm of HBr or less.

6. Brominated anionic styrenic polymer as in Claim 1 wherein said polymer has an initial Hunter Solution ΔE Color Value of 3 or less.

7. Brominated anionic styrenic polymer as in Claim 1 wherein said polymer has a thermal stability in the 320°C Thermal Stability Test of 300 ppm of HBr or less, wherein said polymer has a GPC weight average molecular weight in the range of 10,000 to 30,000, and wherein said polymer has an initial Hunter Solution ΔE Color Value of 5 or less.

8. Brominated anionic styrenic polymer as in Claim 1 wherein said polymer has a thermal stability in the 320°C Thermal Stability Test of 125 ppm of HBr or less, wherein said polymer has a GPC weight average molecular weight in the range of 10,000 to 20,000, and wherein said polymer has an initial Hunter Solution ΔE Color Value of 3 or less.

9. Brominated anionic styrenic polymer as in any of Claims 1-8 wherein said polymer is brominated anionic polystyrene having a bromine content in the range of 67 to 70 wt%.

°°°°

17. Brominated anionic styrenic polymer as in Claim 10 wherein the percentage of aromatic rings having ortho bromine atoms thereon is at least 5% less than the percentage of aromatic rings having ortho bromine atoms thereon in said brominated styrenic polymers formed from the same components with a feed time of 30 minutes or longer, and wherein said polymer has a thermal stability in the 320°C Thermal Stability Test of 300 ppm of HBr or less.

18. Brominated anionic styrenic polymer as in Claim 10 wherein said polymer has a thermal stability in the 320°C Thermal Stability Test of 125 ppm of HBr or less and wherein said polymer has an initial Hunter Solution ΔE Color Value of 3 or less.

19. Brominated anionic styrenic polymer as in any of Claims 1-8, 10, 11, 13-15, 16-17, or 18 wherein said polymer has a bromine content in the range of 67 to 70 wt%.

20. Brominated anionic styrenic polymer as in any of Claims 1-8, 10-15, 16-17, or 18 wherein said polymer is brominated anionic polystyrene.

21. Brominated anionic styrenic polymer as in any of Claims 10-15, 16-17, or 18 wherein said polymer has a GPC weight average molecular weight in the range of 8,000 to 50,000.

22. Brominated anionic styrenic polymer as in Claim 21 wherein said polymer has a GPC weight average molecular weight in the range of 10,000 to 30,000.

23. Brominated anionic styrenic polymer as in Claim 21 wherein said polymer has a GPC weight average molecular weight in the range of 10,000 to 20,000.

24. A flame retardant composition which comprises a blend of at least one thermoplastic polymer and a flame retardant amount of at least one brominated anionic styrenic polymer as in any of Claims 1-8, 9-15, 16-17, or 18-23.

25. A composition as in Claim 24 wherein said thermoplastic polymer is a thermoplastic styrenic polymer, a thermoplastic acrylonitrile-butadiene-styrene polymer, a thermoplastic polyester, or a thermoplastic polyamide.

26. A method of flame retarding a thermoplastic polymer or a thermoset resin, which method comprises blending therewith or applying a coating thereon of at least one brominated styrenic polymer as in any of Claims 1-8, 9-15, 16-17, or 18-23.

27. Brominated anionic styrenic polymer wherein said polymer has an initial Hunter Solution ΔE Color value in the range of up to 1.50, determined as a 10 wt% solution in chlorobenzene using a transmission cell having a 20-mm transmission length.

oooo