CLAIMS

1. A polyamide resin comprising a diamine unit containing 70 mol% or more of a paraxylylenediamine unit and a dicarboxylic acid unit containing 70 mol% or more of a linear aliphatic dicarboxylic acid unit having from 6 to 18 carbon atoms,

which has a phosphorus atom concentration of from 50 to 1,000 ppm and a YI value of 10 or less in the color difference test in accordance with JIS-K-7105.

2. The polyamide resin according to claim 1, wherein the linear aliphatic dicarboxylic acid unit is at least one selected from a group consisting of an adipic acid unit, an azelaic acid unit, a sebacic acid unit, an undecane-diacid unit and a dodecane-diacid unit.

3. The polyamide resin according to claim 1 or 2, wherein the linear aliphatic dicarboxylic acid unit is a sebacic acid unit and/or an azelaic acid unit.

4. The polyamide resin according to any of claims 1 to 3, which comprises a diamine unit containing 90 mol% or more of a paraxylylenediamine unit and a dicarboxylic acid unit containing 90 mol% or more of a sebacic acid unit and/or an azelaic acid unit.

5. The polyamide resin according to any of claims 1 to 4, which has a relative viscosity falling within a range of from 1.8 to 4.2.

6. The polyamide resin according to any of claims 1 to 5, which has a number-average molecular weight (Mn), as measured through gel permeation chromatography, falling within a range of from 10,000 to 50,000, and a degree of dispersion (weight-average molecular weight/number-average molecular weight = Mw/Mn) falling within a range of from 1.5 to 5.0.

7. A polyamide resin composition comprising 100 parts by mass of a polyamide resin according to any one of claims 1 to 6 and from 0.01 to 2 parts by mass of a crystal nucleating agent.

8. A method for producing a polyamide resin according to any one of

claims 1 to 6, which comprises a step of melt polycondensation of a diamine component containing 70 mol% or more of paraxylylenediamine and a dicarboxylic acid component containing 70 mol% or more of a linear aliphatic dicarboxylic acid having from 6 to 18 carbon atoms, in the presence of a phosphorus atom-containing compound (A),

wherein the phosphorus atom-containing compound (A) is at least one selected from a group consisting of alkaline earth metal hypophosphites, alkali metal phosphites, alkaline earth metal phosphites, alkali metal phosphates, alkaline earth metal phosphates, alkali metal pyrophosphates, alkaline earth metal pyrophosphates, alkali metal metaphosphates and alkaline earth metal metaphosphates.

9. The method for producing a polyamide resin according to claim 8, wherein the phosphorus atom-containing compound (A) is at least one selected from a group consisting of calcium hypophosphite, magnesium hypophosphite, calcium phosphite, and calcium dihydrogen phosphate.

10. The method for producing a polyamide resin according to claim 8 or 9, wherein the melt polycondensation is attained in the presence of the phosphorus atom-containing compound (A) and a polymerization speed regulating agent (B), and the molar ratio of the polymerization speed regulating agent (B) to the phosphorus atom of the phosphorus atom-containing compound (A) ([molar amount of polymerization speed regulating agent (B)]/[molar amount of phosphorus atom of phosphorus atom-containing compound (A)]) in the polycondensation system is from 0.3 to 1.0.

11. The method for producing a polyamide resin according to claim 10, wherein the polymerization speed regulating agent (B) is at least one selected from a group consisting of alkali metal hydroxides, alkaline earth metal hydroxides, alkali metal acetates and alkaline earth metal acetates.

12. The method for producing a polyamide resin according to claim 11, wherein the polymerization speed regulating agent (B) is at least one selected from a group consisting of sodium hydroxide, sodium acetate and potassium acetate.

13. A molded article containing the polyamide resin according to any of claims 1 to 6 or the polyamide resin composition according to claim 7.

14. The molded article according to claim 13, which is for electric parts or electronic parts.

15. The molded article according to claim 13, which is for slide members.

16. The molded article according to claim 13, which is for blow moldings.

17. The molded article according to claim 13, which is for automobile parts.

CLAIMS

1. A polyamide resin comprising a diamine unit containing 90 mol% or more of a paraxylylenediamine unit and a dicarboxylic acid unit containing 90 mol% or more of a sebacic acid unit and/or an azelaic acid unit,

which has a phosphorus atom concentration of from 50 to 1,000 ppm and a YI value of 10 or less in the color difference test in accordance with JIS-K-7105.

2. The polyamide resin according to claim 1, which has a relative viscosity falling within a range of from 1.8 to 4.2.

3. The polyamide resin according to any of claim 1 or 2, which has a number-average molecular weight (Mn), as measured through gel permeation chromatography, falling within a range of from 10,000 to 50,000, and a degree of dispersion (weight-average molecular weight/number-average molecular weight = Mw/Mn) falling within a range of from 1.5 to 5.0.

4. A polyamide resin composition comprising 100 parts by mass of a polyamide resin according to any one of claims 1 to 3 and from 0.01 to 2 parts by mass of a crystal nucleating agent.

5. A method for producing a polyamide resin according to any one of claims 1 to 3, which comprises a step of melt polycondensation of a diamine component containing 90 mol% or more of paraxylylenediamine and a dicarboxylic acid component containing 90 mol% or more of sebacic acid and/or azelaic acid, in the presence of a phosphorus atom-containing compound (A),

wherein the phosphorus atom-containing compound (A) is at least one selected from a group consisting of alkaline earth metal hypophosphites, alkali metal phosphites, alkaline earth metal phosphites, alkali metal phosphates, alkaline earth metal phosphates, alkali metal pyrophosphates, alkaline earth metal pyrophosphates, alkali metal metaphosphates and alkaline earth metal metaphosphates.

6. The method for producing a polyamide resin according to claim 5, wherein the phosphorus atom-containing compound (A) is at least one selected from a group consisting of calcium hypophosphite, magnesium hypophosphite, calcium phosphite, and calcium dihydrogen phosphate.

7. The method for producing a polyamide resin according to claim 5 or 6, wherein the melt polycondensation is attained in the presence of the phosphorus atom-containing compound (A) and a polymerization speed regulating agent (B), and the molar ratio of the polymerization speed regulating agent (B) to the phosphorus atom of the phosphorus atom-containing compound (A) ([molar amount of polymerization speed regulating agent (B)]/[molar amount of phosphorus atom of phosphorus atom-containing compound (A)]) in the polycondensation system is from 0.3 to 1.0.

8. The method for producing a polyamide resin according to claim 7, wherein the polymerization speed regulating agent (B) is at least one selected from a group consisting of alkali metal hydroxides, alkaline earth metal hydroxides, alkali metal acetates and alkaline earth metal acetates.

9. The method for producing a polyamide resin according to claim 8, wherein the polymerization speed regulating agent (B) is at least one selected from a group consisting of sodium hydroxide, sodium acetate and potassium acetate.

10. A molded article containing the polyamide resin according to any one of claims 1 to 3 or the polyamide resin composition according to claim 4.

11. The molded article according to claim 10, which is for electric parts or electronic parts.

12. The molded article according to claim 10, which is for slide members.

13. The molded article according to claim 10, which is for blow moldings.

14. The molded article according to claim 10, which is for automobile parts.