CLAIMS

1. A method for producing an ethylene-vinyl alcohol copolymer resin, the method comprising: a step of irradiating an ethylene-vinyl alcohol copolymer or an ethylene-vinyl ester copolymer that is a precursor of the ethylene-vinyl alcohol copolymer with an infrared ray.

2. The method for producing an ethylene-vinyl alcohol copolymer resin according to claim 1, wherein the irradiation with an infrared ray in the step of irradiation with an infrared ray is carried out with an infrared ray lamp.

3. The method for producing an ethylene-vinyl alcohol copolymer resin according to claim 1 or 2, wherein the wavelength of the infrared ray in the step of irradiation with an infrared ray is 700 nm or greater and 1,000,000 nm or less.

4. The method for producing an ethylene-vinyl alcohol copolymer resin according to any one of claims 1 to 3, wherein the intensity of the infrared ray in the step of irradiation with an infrared ray is 30×10^3 W/m^3 or greater and $3,000 \times 10^3$ W/m^3 or less.

5. The method for producing an ethylene-vinyl alcohol copolymer resin according to any one of claims 1 to 4, wherein the irradiation time in the step of irradiation with an infrared ray is 0.1 hours or longer and 20 hours or shorter.

6. The method for producing an ethylene-vinyl alcohol copolymer resin according to any one of claims 1 to 5, the method further comprising a saponification step of saponifying the ethylene-vinyl ester copolymer to obtain an ethylene-vinyl alcohol copolymer.

7. The method for producing an ethylene-vinyl alcohol copolymer resin according to claim 6, wherein the step of irradiation with an infrared ray is carried out not before the saponification step, and the temperature of the ethylene-vinyl alcohol copolymer resin in this step of irradiation with an infrared ray is the glass transition temperature or greater and the melting temperature or less of the ethylene-vinyl alcohol copolymer.

8. The method for producing an ethylene-vinyl alcohol copolymer resin according to claim 6 or 7,

further comprising a pelletization step of obtaining a pellet including an ethylene-vinyl alcohol copolymer from a solution or paste containing the ethylene-vinyl alcohol copolymer obtained by the saponification step, wherein

the step of irradiation with an infrared ray is carried out simultaneously with or after the pelletization step.

9. The method for producing an ethylene-vinyl alcohol copolymer resin according to claim 8,

further comprising a drying step of drying the pellet to give a water content of 0.01% by mass or greater and less than 10% by mass, wherein

the step of irradiation with an infrared ray is carried out simultaneously with or after the drying step.

10. The method for producing an ethylene-vinyl alcohol copolymer resin according to claim 9, wherein the pellet has a water content before irradiating with an infrared ray of 0.01% by mass or greater and less than 10% by mass.

11. The method for producing an ethylene-vinyl alcohol copolymer resin according to any one of claims 1 to 10, wherein the irradiation with an infrared ray is carried out on a solid matter containing an ethylene-vinyl alcohol copolymer and water.

12. The method for producing an ethylene-vinyl alcohol copolymer resin according to claim 11, wherein the solid matter is dried by the irradiation with an infrared ray.

13. The method for producing an ethylene-vinyl alcohol copolymer resin according to claim 12, wherein an atmospheric temperature is 10°C or greater and 100°C or less in the step of irradiation with an infrared ray.

14. The method for producing an ethylene-vinyl alcohol copolymer resin according to claim 12 or 13, wherein the water content of the solid matter subjected to the step of irradiation with an infrared ray is 0.5% by mass or greater and 200% by mass or less.

15. The method for producing an ethylene-vinyl alcohol

copolymer resin according to any one of claims 12 to 14, wherein the water content of the solid matter after subjecting to the step of irradiation with an infrared ray is less than 0.5% by mass.

16. The method for producing an ethylene-vinyl alcohol copolymer resin according to any one of claims 11 to 15, wherein the solid matter is granular, and the infrared ray is irradiated while agitating the solid matter in the step of irradiation with an infrared ray.

17. The method for producing an ethylene-vinyl alcohol copolymer resin according to any one of claims 11 to 15, wherein the solid matter is granular, and the infrared ray is irradiated while conveying the solid matter on a conveyor in the step of irradiation with an infrared ray.

18. An ethylene-vinyl alcohol copolymer resin obtained by the method for producing an ethylene-vinyl alcohol copolymer resin according to any one of claims 1 to 17.

19. The ethylene-vinyl alcohol copolymer resin according to claim 18, which has a pellet form or film form.

20. A laminate having at least one layer comprising the ethylene-vinyl alcohol copolymer resin according to claim 18.

CLAIMS

1. A method for producing an ethylene-vinyl alcohol copolymer resin, the method comprising

a step of saponifying an ethylene-vinyl ester copolymer to obtain an ethylene-vinyl alcohol copolymer, which method further comprises

a step of irradiating the ethylene-vinyl ester copolymer with an infrared ray prior to the saponification step, where the temperature of the ethylene-vinyl ester copolymer resin in this step of irradiation with an infrared ray is 40° C. or greater and 110° C. or less.

2. A method for producing an ethylene-vinyl alcohol copolymer resin, the method comprising

a step of saponifying an ethylene-vinyl ester copolymer to obtain an ethylene-vinyl alcohol copolymer, which method further comprises

a step of irradiating the ethylene-vinyl ester copolymer or the ethylene-vinyl alcohol copolymer with an infrared ray,

the method further comprising a pelletization step of obtaining a hydrous pellet comprising an ethylene-vinyl alcohol copolymer from a solution containing the ethylene-vinyl alcohol copolymer obtained by the saponification step, wherein

the step of irradiation with an infrared ray is carried out not before the pelletization step.

3. The method for producing an ethylene-vinyl alcohol copolymer resin according to claim 2, wherein the irradiation with an infrared ray in the step of irradiation with an infrared ray is carried out with an infrared ray lamp.

4. The method for producing an ethylene-vinyl alcohol copolymer resin according to claim 2, wherein the wavelength of the infrared ray in the step of irradiation with an infrared ray is 700 nm or greater and 1,000,000 nm or less.

5. The method for producing an ethylene-vinyl alcohol copolymer resin according to claim 2, wherein the intensity of the infrared ray in the step of irradiation with an infrared ray is 30×10^3 W/m^3 or greater and $3,000\times10^3$ W/m^3 or less.

6. The method for producing an ethylene-vinyl alcohol copolymer resin according to claim 2, wherein the irradiation time in the step of irradiation with an infrared ray is 0.1 hrs or longer and 20 hrs or shorter.

7. The method for producing an ethylene-vinyl alcohol copolymer resin according to claim 2, wherein the step of irradiation with an infrared ray is carried out not before the saponification step, and the temperature of the ethylene-vinyl alcohol copolymer resin in this step of irradiation with an infrared ray is the glass transition point or greater and the melting temperature or less of the ethylene-vinyl alcohol copolymer.

8. The method for producing an ethylene-vinyl alcohol copolymer resin according to claim 2, wherein the irradiation with an infrared ray is carried out on the hydrous pellet, and the water content of this hydrous pellet before irradiating with an infrared ray is 10% by mass or greater and 200% by mass or less.

9. The method for producing an ethylene-vinyl alcohol copolymer resin according to claim 2,

further comprising a drying step of drying the hydrous pellet to obtain a dry pellet having a water content of 0.01% by mass or greater and less than 10% by mass, wherein

the step of irradiation with an infrared ray is carried out not before the drying step.

10. The method for producing an ethylene-vinyl alcohol copolymer resin according to claim 9, wherein the dry pellet has a water content before irradiating with an infrared ray of 0.01% by mass or greater and less than 10% by mass.

11. The method for producing an ethylene-vinyl alcohol copolymer resin according to claim 9,

further comprising a molding step of molding the dry pellet to obtain a molded product including an ethylene-vinyl alcohol copolymer, wherein

the step of irradiation with an infrared ray is carried out not before the molding step.

12. The method for producing an ethylene-vinyl alcohol copolymer resin according to claim 11, wherein the molded product has a water content before irradiating with an infrared ray of 0.01% by mass or greater and less than 10% by mass.