CLAIMS

1. A starch composition for food products obtained by subjecting a polyglycerol fatty acid ester and one or more selected from the group consisting of raw potato starch, hydroxypropyl potato starch, distarch phosphate potato starch, and hydroxypropyl distarch phosphate potato starch, to a heat treatment at 100°C or higher, in the presence of water, and under a pressure condition of 0.5 MPa or higher and 20 MPa or lower, using an extruder;

wherein the mass ratio of the polyglycerol fatty acid ester to 100 parts by mass of the one or more raw material starches selected from the group consisting of raw potato starch, hydroxypropyl potato starch, distarch phosphate potato starch, and hydroxypropyl distarch phosphate potato starch is not less than 0.01 and not more than 4.8 parts by mass; and

wherein the starch composition comprises a starch-lipid complex.

2. The starch composition for food products according to claim 1, wherein the polyglycerol fatty acid ester has a HLB value of not lower than 1 and not higher than 13 and an average degree of polymerization of not less than 2 and not more than 9.

3. The starch composition for food products according to claim 1 or 2, wherein the Brookfield viscosity (Pa·s) of a slurry, which is obtained by mixing the starch composition for food products with an edible rapeseed oil/fat that is twice as much and water that is 7 times as much as the mass of the starch composition for food products in this order at 20°C without heating, measured under the conditions of 30 rpm for 30 seconds is not lower than 2 Pa·s and not higher than 100 Pa·s, and

wherein the Brookfield viscosity (Pa·s) of the slurry measured under the conditions of 30 rpm for 30 seconds after cooling or heating the slurry satisfies the following condition:

“the Brookfield viscosity (Pa·s) at 0°C is not less than twice and not more than 30 times the Brookfield viscosity at 90°C”.

4. The starch composition for food products according to claim 3, wherein the Brookfield viscosity of the slurry at 0°C is not lower than 5 Pa·s and not higher than 300 Pa·s.

5. The starch composition for food products according to claim 3 or 4, wherein the difference between the Brookfield viscosities (Pa·s) of the slurry at the temperatures of 20°C,

30°C, 40°C, 50°C and 60°C when a freeze-thaw cycle is repeated three times under the following conditions and the Brookfield viscosities (Pa·s) at the corresponding temperatures before the freeze-thaw cycle is within 10.0 Pa·s:

"<Conditions for freeze-thaw cycles>

for the first cycle, the slurry prepared at room temperature is cooled to -10°C at a cooling rate of -1°C/min and kept in that state for at least 15 hours, then the slurry is heated to reach 60°C at a heating rate of 45°C/min, and then cooled again to -10°C at a cooling rate of -1°C/min and kept in that state for at least 15 hours; and

for the second cycle and on, the slurry that went through the first cycle is heated to reach 60°C at a heating rate of 45°C/min and then cooled again to -10°C at a cooling rate of -1°C/min and kept in that state for at least 15 hours."

6. A method for producing a starch composition for food products, the method comprising a step of subjecting an ingredient mixture containing a polyglycerol fatty acid ester and one or more selected from the group consisting of raw potato starch, hydroxypropyl potato starch, distarch phosphate potato starch, and hydroxypropyl distarch phosphate potato starch, to a heat treatment at 100°C or higher, in the presence of water, and under a pressure condition of 0.5 MPa or higher and 20 MPa or lower, using an extruder;

wherein the mass ratio of the polyglycerol fatty acid ester to 100 parts by mass of the one or more raw material starches selected from the group consisting of raw potato starch, hydroxypropyl potato starch, distarch phosphate potato starch, and hydroxypropyl distarch phosphate potato starch is not less than 0.01 and not more than 4.8 parts by mass; and

wherein the starch composition comprises a starch-lipid complex.

7. The method for producing a starch composition for food products according to claim 6, wherein the polyglycerol fatty acid ester has a HLB value of not lower than 1 and not higher than 13 and an average degree of polymerization of not less than 2 and not more than 9.

8. An emulsified composition comprising the starch composition for food products according to any one of claims 1 to 5, an edible oil/fat that is not less than 0.5 times and not more than 10 times the mass of the starch composition for food products, and water that is not less than 0.5 times and not more than 10 times the mass of the starch composition for food products.

9. A food product comprising the starch composition for food products according to any one of claims 1 to 5 or the emulsified composition according to claim 8.

10. The food product according to claim 9, wherein the food product is a frozen dessert.

11. A method for imparting a thick texture to a frozen dessert, the method comprising blending the starch composition for food products according to any one of claims 1 to 5 or the emulsified composition according to claim 8 into the frozen dessert.

12. Use of the starch composition for food products according to any one of claims 1 to 5 or the emulsified composition according to claim 8 as an active ingredient for an ice-crystal stabilizer in a frozen food product.