CLAIMS

1. A water-saving toilet made of novel thermoplastic resin compound material, wherein the toilet is made of novel thermoplastic resin compound material containing inorganic stuffing by injection technique and comprises:

a main body (10), a water outlet (11) of the main body set in the lower part of the main body (10), and a flushing water pipe outlet (12) set on the side wall of the main body's water outlet (11);

a water tank (20), a cavity (21) at the bottom of the water tank (20), the cavity (21) being integrated and in communication with the water tank (20), a main pipe opening (211) and a flushing pipe inlet (212) are set on the cavity in the far end away from the water tank (20), the cavity (21) being in communication with the main body (10) through the main pipe opening (211);

a flushing pipe (30), the ends of which being connected with the flushing pipe inlet (212) and the flushing water pipe outlet (12) respectively;

and a siphon pipe, top of the siphon pipe (40) being higher than the main body's water outlet (11), a water inlet (41) being set in the upper end of the siphon pipe (40), and is in communication with the main body's water outlet (11), the low end of the siphon pipe (40) being connected with a downcomer.

wherein the thermoplastic resin compound material comprises the following materials by weight percentage, the special formula as following:

Inorganic stuffing 50%- 70%,

Polypropylene 25%- 40%,

Maleic anhydride modified polypropylene 3%- 6%,

Titanium dioxide powder 1%- 3%,

And antioxidant 1%- 2%.

wherein said inorganic stuffing is modified with stearic acid.

2. A water-saving toilet made of novel thermoplastic resin compound material of claim 1, wherein ~~the thermoplastic resin compound material comprises the following materials by weight percentage:~~ said modification is carried out by mixing 1-5% weight percentage of stearic acid and 95-99% weight percentage of stuffing at 90-100°C by a high speed mixer for 15-30 min so as to sufficiently mix and collide the stearic acid and stuffing.

~~Inorganic stuffing 50%- 70%,~~

~~Polypropylene 25%- 40%,~~

~~Maleic anhydride modified polypropylene 3%- 6%,~~

~~Titanium dioxide powder 1%- 3%,~~

~~And antioxidant 1%- 2%,~~

~~wherein said inorganic stuffing is modified with stearic acid.~~

3. A water-saving toilet made of novel thermoplastic resin compound material of claims 1 or 2, wherein said ~~modification is carried out by mixing 1-5% weight percentage of stearic acid and 95-99% weight percentage of stuffing at 90-100°C by a high speed mixer for 15-30 min so as to sufficiently mix and collide the stearic acid and stuffing.~~ inorganic stuffing is wollastonite, or calcium carbonate, or a mixture of wollastonite and calcium carbonate.

4. A water-saving toilet made of novel thermoplastic resin compound material of claims 1 ~~to 3~~, or 2, wherein ~~said inorganic stuffing is wollastonite, or calcium carbonate, or a mixture of wollastonite and calcium carbonate.~~ inner walls of said siphone pipe (40) and said flushing pipe (30) are smooth by polishing and painting

5. A water-saving toilet made of novel thermoplastic resin compound material of claim ~~1 to~~ 3, wherein inner walls of said siphon pipe (40) and said flushing pipe (30) are smooth by polishing and painting.

6. A water-saving toilet made of novel thermoplastic resin compound material of claim 4 1 or 2 , wherein ~~inner walls of~~ said siphon pipe (40) ~~and said flushing pipe (30) are smooth by polishing and painting.~~ is shaped as an irregular deep reverse U.

7. A water-saving toilet made of novel thermoplastic resin compound material of claim 1 or 2 ~~or 3 or 6~~, wherein ~~said siphon pipe (40) is shaped as an irregular deep reverse U~~. the toilet is formed by connecting the main body (10), the water tank (20), the flushing pipe (30) and the siphon pipe (40) and is convenient in disassembly, cleaning and maintenance.

8. A water-saving toilet made of novel thermoplastic resin compound material of claim ~~1 or 2 or 3 or~~ 6, wherein the toilet is formed by connecting the main body (10), the water tank (20), the flushing pipe (30) and the siphon pipe (40) and is convenient in disassembly, cleaning and maintenance.

9. A water-saving toilet made of novel thermoplastic resin compound material of claim ~~7~~ 8, wherein ~~the toilet is formed by connecting the main body (10), the water tank (20), the flushing pipe (30) and the siphon pipe (40) and is convenient in disassembly, cleaning and maintenance.~~ all joints of the toilet are sealed by seal rings.

~~10. A water-saving toilet made of novel thermoplastic resin compound material of claim 9, wherein all joints of the toilet are sealed by seal rings.~~

~~11.~~ 10. A method of producing a water-saving toilet made of novel thermoplastic resin compound material of claim 1 or 2 ~~or 3 or 6 or 9 or 10~~, comprising the following steps:

step 1, preparation of compound material granules: mixing polypropylene, maleic modified polypropylene, titanium dioxide powder, stuffing and antioxidant evenly in a mixer according to said weight percentage, adding the mixture into a hopper of a double screw extruder, thermally forming the mixture, extruding from extruder to obtain compound material strips, cooling the

strips, putting the cooled strips into a granulator to make granules and drying the granules in an oven;

step 2, production of the toilet parts by injection molding: feeding the compound material granules into the charging barrel of an injection machine, melting them, injecting the melt into metal moulds of the main body, water tank, flushing pipe and siphon pipe respectively, injecting 5-10°C cooling water into cooling water pipes of the metal moulds to solidify the products, opening the moulds and taking out the formed parts;

step 3: fixedly connecting the parts to make a toilet: fixedly connect the flushing pipe to the flushing pipe inlet and outlet, fixedly connect the upper end of the siphon pipe to the water outlet of the toilet and apply seal rings to every joint to prevent water leakage.

~~12.~~ 11. A method of producing a water-saving toilet made of novel thermoplastic resin compound material of claim ~~11~~ 10, wherein said step 3 also comprises a step for polishing and painting the inner walls of the flushing pipe and siphon pipe before connecting the parts.