CLAIMS

1. A polyurethane resin obtained by reacting

(1) a urethane prepolymer obtained by reacting

(a) a mixture of a monool and a polyol, having on average 1.3 to 2.1 of terminal hydroxyl groups, and

(b) a polyisocyanate, and

(2) a compound having a crosslinkable silyl group, an imino group and an amino group in a molecule, of the following formula I:

$(R^1O)_n-SiR_{3-n}-R^2-NH-R^3-NH_2$ (formula I)

wherein R represents a methyl group or an ethyl group,

R^1 represents a methyl group or an ethyl group,

R^2 represents a hydrocarbon group having 2-10 carbon atoms,

R^3 represents a hydrocarbon group having 2-10 carbon atoms,

n is 1, 2 or 3,

wherein the reaction of the mixture (a) of a monool and a polyol and the polyisocyanate (b) is carried out in a range of NCO/OH equivalent ratio of 1.6 to 2.5, the reaction of said prepolymer (1) and the compound (2) of the formula I is carried out in a range of NCO/NH_2 equivalent ratio of 0.6 to 1.2, and the mixture (a) of a monool and a polyol is obtained by mixing 20 to 80 wt.% of a monool and 80 to 20 wt.% of a polyol, based on the whole amount of the mixture (a).

2. The polyurethane resin according to claim 1, the polyol has a number-average molecular weight (Mn) of 500 to 30000.

3. The polyurethane resin according to claim 1 or 2, the

polyol is a polyoxypropylene diol.

~~4. The polyurethane resin according to claim 1, the reaction of the mixture (a) of a monool and a polyol and the polyisocyanate (b) is carried out in a range of NCO/OH equivalent ratio of 1.6 to 2.5.~~

~~5. The polyurethane resin according to claim 1 or 4, the reaction of said prepolymer and the compound of the formula I is carried out in a range of NCO/NH_2 equivalent ratio of~~

~~0.6 to 1.2~~

~~64~~. A production process of a polyurethane resin, ~~characterized in that~~wherein

(1) a urethane prepolymer obtained by reacting

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(b) a polyisocyanate, and

(2) a compound having a crosslinkable silyl group, an imino group and an amino group in a molecule, of the following formula I:

$(R^1O)_n-SiR_{3-n}-R^2-NH-R^3-NH_2$ (formula I)

wherein R represents a methyl group or an ethyl group,

R^1 represents a methyl group or an ethyl group,

R^2 represents a hydrocarbon group having 2-10 carbon atoms,

R^3 represents a hydrocarbon group having 2-10 carbon atoms,

are reacted,

n is 1, 2 or 3,

wherein the reaction of the mixture (a) of a monool and a polyol and the polyisocyanate (b) is carried out in a range of NCO/OH equivalent ratio of 1.6 to 2.5, the reaction of said prepolymer (1) and the compound (2) of the formula I is carried out in a range of NCO/NH_2 equivalent ratio of 0.6 to 1.2, and the mixture (a) of a monool and a polyol is obtained by mixing 20 to 80 wt.% of a monool and 80 to 20 wt.% of a polyol, based on the whole amount of the mixture (a).