[CLAIMS]

[Claim 1] A polyurethane for use in a polishing layer, which has a carboxylic acid ester group in at least one of a side chain and a main chain terminal.

[Claim 2] The polyurethane for use in a polishing layer according to claim 1, comprising

a monomer unit having a carboxylic acid ester group.

[Claim 3] The polyurethane for use in a polishing layer according to claim 1 or 2,

wherein the polyurethane comprises, as the monomer unit, at least a chain extender unit (a), a polymer polyol unit (b), and an organic diisocyanate unit (c), and at least one of the chain extender unit (a) and the polymer polyol unit (b) has the carboxylic acid ester group.

[Claim 4] The polyurethane for use in a polishing layer according to claim 1 or 2,

wherein the polyurethane comprises, as the monomer unit, at least a chain extender unit (a), a polymer polyol unit (b), and an organic diisocyanate unit (c), and the chain extender unit (a) has the carboxylic acid ester group.

[Claim 5] The polyurethane for use in a polishing layer

according to claim 4,

wherein the chain extender unit (a) includes a monomer unit derived from at least one compound selected from the group consisting of a tartaric acid diester, 1-(tert-butoxycarbonyl)-3-pyrrolidinol, and methyl 2,4-dihydroxybenzoate.

[Claim 6] The polyurethane for use in a polishing layer according to any one of claims 1 to 5,

wherein the polyurethane is a thermoplastic polyurethane.

[Claim 7] A polishing layer comprising

the polyurethane for use in a polishing layer according to any one of claims 1 to 6.

[Claim 8] The polishing layer according to claim 7,

wherein the polishing layer is an unfoamed molded body of the polyurethane for use in a polishing layer.

[Claim 9] A method for modifying a polishing layer, comprising the steps of:

preparing a polishing layer comprising a polyurethane having a carboxylic acid ester group; and

hydrolyzing the carboxylic acid ester group of the polyurethane, to produce a carboxyl group.

[Claim 10]A polishing layer comprising a molded body of a thermoplastic polyurethane having a carboxyl group,

wherein the polishing layer has a zeta potential at a pH of 3.0 to 8.0, of -1.0 mV or less.

[Claim 11]The polishing layer according to claim 10,

wherein the polishing layer has a contact angle with water of 80 degrees or less.

[Claim 12]A polishing pad comprising

the polishing layer according to any one of claims 7,8, and 10 to 11.