[CLAIMS]

[Claim 1] A polyurethane for use in a polishing layer,

wherein the polyurethane comprises, at a polyurethane molecular chain terminal, a terminal group represented by the following formula (I):

$$R-(OX)_n- \quad (I)$$

wherein R represents a monovalent hydrocarbon group having 1 to 30 carbon atoms that may be substituted with a heteroatom or may be interrupted by a heteroatom, X represents an alkylene group having 2 to 4 carbon atoms, 90 to 100% of the alkylene group being an ethylene group, and n represents a number from 8 to 120.

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

wherein the R is an aliphatic hydrocarbon group having 1 to 22 carbon atoms.

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

wherein the n is 15 to 100.

[Claim 4] The polyurethane for use in a polishing layer according to any one of claims 1 to 3,

wherein the polyurethane contains 0.005 to 0.05

mmol/g of the terminal group represented by the formula (I).

[Claim 5] The polyurethane for use in a polishing layer according to any one of claims 1 to 3,

wherein the polyurethane contains 1 to 10 mass% of the terminal group represented by the formula (I).

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

wherein the polyurethane is a reaction product of an organic polyisocyanate (A), a polymer polyol (B), a chain extender (C), and a compound (D) represented by the following formula (II):

$$R-(OX)_n-A_H \quad (II)$$

wherein R, X, and n are the same as those in the formula (I), A_H is a hydroxyl group, an amino group, or a monovalent hydrocarbon group having 1 to 4 carbon atoms and containing said groups.

[Claim 7] The polyurethane for use in a polishing layer according to claim 6,

wherein a ratio of nitrogen atoms derived from an isocyanate group of the organic polyisocyanate (A) is 4.6 to 6.8 mass%.

[Claim 8] The polyurethane for use in a polishing layer

according to claim 6 or 7,

wherein the polymer polyol (B) contains 70 mass% or more of polytetramethylene glycol.

[Claim 9] The polyurethane for use in a polishing layer according to any one of claims 1 to 8,

wherein the polyurethane has a water absorption rate when swollen to saturation with warm water at 50°C, of 3% or less.

[Claim 10]The polyurethane for use in a polishing layer according to any one of claims 1 to 9,

wherein the polyurethane has thermoplasticity.

[Claim 11]A polishing layer that is a molded body of the polyurethane for use in a polishing layer according to any one of claims 1 to 10.

[Claim 12]The polishing layer according to claim 11,

wherein the polishing layer is non-porous.

[Claim 13]The polishing layer according to claim 11 or 12,

wherein the polishing layer has a JIS-D hardness at 23°C when immersed in warm water at 50°C for 72 hours, of 45 to 75.

[Claim 14]A polishing pad comprising:

a polishing layer including the polyurethane for use in a polishing layer according to any one of claims 1 to 10, and a cushioning layer having a hardness lower than a hardness of the polishing layer.