Claims

1. A polyvinyl alcohol-based polymer, as a saponificated product of a copolymer of a vinyl ester monomer and a polyfunctional monomer, wherein the polyvinyl alcohol-based polymer has a slope of 1.2 or less in a double logarithmic plot of storage elastic modulus G' at 20°C in an angular frequency region of 1.0 to 10.0 rad/s, in measurement of an aqueous solution of the polyvinyl alcohol-based polymer filtered through a 100-mesh filter with an opening of 0.154 mm and then adjusted to a concentration of 10.0 mass%.

2. The polyvinyl alcohol-based polymer according to claim 1, wherein the aqueous solution of the polyvinyl alcohol-based polymer filtered through a 100-mesh filter with an opening of 0.154 mm and then adjusted to a concentration of 10.0 mass% has a value of angular frequency-dependent loss tangent, tan δ, of 1.0 to 10.0 in an angular frequency region of 0.1 to 100 rad/s.

3. The polyvinyl alcohol-based polymer according to claim 1 or 2, wherein the polyvinyl alcohol-based polymer has a degree of saponification of 72 to 99 mol%.

4. An additive for oil well cement, comprising the polyvinyl alcohol-based polymer according to any one of claims 1 to 3.