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 particle size of 50 nm or more at a cumulative frequency of 50% in particle size distribution by dynamic light scattering measurement of a 0.4 mass% aqueous solution of the polyvinyl alcohol-based polymer at 25°C,

wherein an average particle size obtained from the dynamic light scattering measurement of a 0.4 mass% aqueous solution of the polyvinyl alcohol-based polymer at 25°C is 60 nm or more, and

wherein a 1.0 mass% aqueous solution of the polyvinyl alcohol-based polymer has a passage rate for a membrane filter having a pore size of 0.45 μm of 10 mass% or less in terms of solid content.

2. The polyvinyl alcohol-based polymer according to claim 1, wherein an average particle size obtained from the dynamic light scattering measurement of a 0.4 mass% aqueous solution of the polyvinyl alcohol-based polymer at 25°C is 70 nm to 1500 nm.

3. The polyvinyl alcohol-based polymer according to claim 1 or 2, wherein a 1.0 mass% aqueous solution of the polyvinyl alcohol-based polymer has a passage rate for a 300-mesh filter (opening: 0.045 mm) of 95 mass% or more in terms of solid content.

4. The polyvinyl alcohol-based polymer according to any one of claims 1 to 3, wherein a 1.0 mass% aqueous solution of the polyvinyl alcohol-based polymer has a passage rate for

a membrane filter having a pore size of 0.45 μm of 0 to 5 mass% in terms of solid content.

5. The polyvinyl alcohol-based polymer according to any one of claims 1 to 4, wherein the polyvinyl alcohol-based polymer has an average degree of polymerization of 2500 to 6000 in measurement according to the method described in JIS K 6726: 1994.

6. An additive for oil well cement comprising the polyvinyl alcohol-based polymer according to any one of claims 1 to 5.