Table 1

Material	Composition and the like	Abbreviation
Calcium aluminate clinker	$12CaO \cdot 7Al_2O_3$, vitrification rate: 92%, chemical composition Al_2O_3: 45.1%, CaO: 47.3%, SiO_2: 3.9%	CA-CL
Inorganic sulfate	$CaSO_4$, hydrofluoric acid anhydrite type II, Blaine specific surface area of 9,850 cm^2/g	CS
Ordinary Portland cement	Manufactured by Mitsubishi Materials Corporation, Blaine specific surface area of 3,340 cm^2/g	N
Inorganic carbonate	Na_2CO_3, sodium carbonate, particle size of 45 to 90 μm	Na-1
	Na_2CO_3, sodium carbonate, particle size of 90 to 150 μm	Na-2
	Na_2CO_3, sodium carbonate, particle size of 150 to 500 μm	Na-3
Sodium aluminate	Na_2AlO_2, sodium aluminate, particle size of 45 to 90 μm	Al-1
	Na_2AlO_2, sodium aluminate, particle size of 90 to 150 μm	Al-2
	Na_2AlO_2, sodium aluminate, particle size of 150 to 500 μm	Al-3
Oxycarboxylic acid	Tartaric acid, particle size of 45 to 90 μm	Ta-1
	Tartaric acid, particle size of 90 to 150 μm	Ta-2
	Tartaric acid, particle size of 150 to 500 μm	Ta-3
Sodium sulfate	Na_2SO_4, sodium sulfate, particle size of 150 to 500μm	NS-3
Fine aggregate	Dry silica sand (particle diameter of 90 μm to 200 μm)	S
Viscosity agent	Manufactured by BASF, STARVIS WR4600F	WR
Defoaming agent	San Nopco Limited, SN DEFOAMER 14HP	14HP
Powdered emulsion	Manufactured by Nichigo-Movinyl Co., Ltd., LDM2071P, vinyl acetate/Veova/acrylic acid ester copolymer resin	P
Silica stone fine powder	Manufactured by FUJISAKA, Blaine specific surface area of 4,850 cm^2/g	SP
Limestone fine powder	Manufactured by Mitsubishi Materials Corporation, Blaine specific surface area of 4,460 cm^2/g	LP
Anti-freezing agent	Calcium nitrite, Manol Corporation, MANOL anti-freezing agent NAC	CN