

**Pottery Plaster** Main reference values:  $\geq$  means greater than,  $\leq$  means less than

Category	Product name	Water-mixing amount (%)	Influx time (minutes)	Finish time (minutes)	Expansion (%)	Strength (MPa)		Uses	Features
						Wet tension	Wet compression		
General-use	HS-600	56-60	8.5-10	35-47	<0.18	>1.4	>8.3	General spinning lathe	Excellent moisture absorbency Quick-drying plaster molds Anti-pore-clogging Good material removal from new molds High moisture absorbency despite low water-mixing amount
	HS-650 (Equivalent grade)	61-65	7.5-9.5	35-47	<0.18	>1.1	>7.4	General spinning lathe Pressure casting	
	HS-700	66-70	7.5-9	32-44	<0.18	>1	>6.4	Pressure casting	
	HS-750 (Grade-A equivalent)	71-75	7-9	32-44	<0.18	>0.9	>5.9	General spinning lathe	
For sand match prototype molds	HS-700 Minimal expansion	66-70	7.5-9.5	32-44	<0.15	>1	>6.4	Sample molds	Minimal expansion Good workability
For cases	High case	46-50	9	31-43	<0.1	>1.3	>10.8	Case molds (Mainly for lathe molds)	Minimal expansion Neutral
	H23B	40	7	<50	<0.08	>1.4	>16.5	Case molds	Minimal expansion, high-strength Good workability Neutral
	ST cases	50-54	6.5-9	29-41	<0.08	>1.3	>10.8	Case molds	Minimal expansion Good workability Alkaline
For wet presses	C-100P	35	10	<60	<0.1	-	-	Wet presses High-pressure casting	Minimal expansion Good permeability Outstanding durability
For special casting	C-100	32	10	44	0.07-0.11	>2.4	>23.5	Special casting	Outstanding durability Good permeability Mold drying unnecessary

**Metal casting plaster** Main reference values:  $\geq$  means greater than,  $\leq$  means less than

Category	Product name	Water-mixing amount (%)	Agitation time (minutes)	Finish time (minutes)	Final expansion (%)	Strength (MPa)		Uses	Features
						Wet tension	Wet compression		
Foamability	G-1	80	Special agitation	30-40	<0.13	-	-	Tire mold making	Good permeability Good disintegration Good heat retention
Non-foaming	G-2	47-49	6	40-55	<0.12	>0.7	>3.6	Pâte de verre for generic prototype-making	Good dimensional precision Good casting surface smoothness
	G-6	47-49	4	35-45	<0.12	>0.8	>3.9	Tire mold making	Good dimensional precision Good casting surface smoothness
For lost-wax casting	T-6X	36-38	4	-	<0.7	>0.3	>1.3	Generic prototype-making	Good dimensional precision Good casting surface smoothness Easy removal from mold
	Gifts	40	3	-	0.5-0.9	>0.3	>2	Rings and other ornaments Eyeglass components	Compatible with rapid heating Good dimensional precision Good casting surface smoothness

Plaster for filler (construction and civil works) Main reference values

Classification	Product Name	Purity (%) CaSO <sub>4</sub>	Median diameter (μ m)	Usage characteristics	Usage applications
Dihydrate calcium sulfate (CaSO <sub>4</sub> ·2H <sub>2</sub> O)	Raw Gypsum A	–	–	Calcium sulfate component Powder characteristics (e.g. feature modifications)	Filtration aid antibiotic medium filler for resins and paints, agrochemicals, incense, fertilizers, etc.
	P52A	95	40		
	P52B	95	20		
Hemihydrate calcium sulfate (CaSO <sub>4</sub> ·1/2H <sub>2</sub> O)	P21A (Alpha calcium sulfate)	95	25	Note 1: Moisture absorbency Powder characteristics (e.g. feature modifications) Calcium sulfate component Hydration and hardening	Desiccant for resins and plastics Filler for resins and plastics Agrochemical carrier Gypsum board, gypsum putty Polishing fixative, and more
	TA-85N (Beta calcium sulfate)	95	10–25		
	SB (Beta calcium sulfate)	95	20		
	FT-2 (Beta calcium sulfate)	95	20		
Type-II anhydrous calcium sulfate (II CaSO <sub>4</sub> )	D-101A	95	20	Calcium sulfate component Powder characteristics (e.g. feature modifications)	Additive for special cements Filler for (heat-resistant) resins and paints, and more.
	D-700	*1:85	15–30		
Type-III anhydrous calcium sulfate (III CaSO <sub>4</sub> )	D-1	*2:90	20	Note 2: Absorbency (desiccation) Powder characteristics (e.g. feature modifications)	Desiccant for resins and paints Filler for resins and paints, and more

Note 1: “Moisture absorbency” refers to the material’s ability to absorb moisture (water droplets).

Note 2: “Absorbency” (“desiccation”) refers to the material’s ability to absorb moisture from the air.

\*1: II–CaSO<sub>4</sub> is at least 95% pure CaSO<sub>4</sub>.

\*2: III–CaSO<sub>4</sub> is at least 95% pure CaSO<sub>4</sub>.

**Calcium sulfate (for use as a food additive)** Main reference values:  $\geq$  means greater than,  $\leq$  means less than

Classification	Product name	150 mesh pass	Bulk density	pH	Packaging (kg)	Uses	Features
General-use	Calcium sulfate B	>93	0.8	6-7.5	25	Food additives Beer for drinking Water conditioner	Snow-white, high-purity
	Calcium sulfate D	>95	0.9	6-7.5	25		
	Calcium sulfate S	>93	0.8	6-7.5	20		
	Calcium sulfate T	>95	0.7	6-7.5	20		
	Calcium sulfate J	>75	0.7	6-7.5	20		
For tofu	Nittosumashi powder	>93	0.7	6-7.5	15	Food additive Coagulating agent for tofu	Produces firm, delicious, flawless, snow-white tofu.

**Tooling Plaster** Main reference values:  $\geq$  means greater than,  $\leq$  means less than \*Measurements taken during drying.

Category	Product name	Water-mixing amount (%)	Influx time (minutes)	Finish time (minutes)	Expansion (%)	Strength (MPa)		Uses	Features
						Wet tension	Wet compression		
Resin mixture	B-10	25-27	5	55-72	<0.3	-	*>23.5	Large precision plaster copies Hollow shapes Wax molds	Minimal expansion Good strength and hardness Alkaline
	B-110	30-33	7	30-42	<0.12	-	*>25	Small precision plaster copies Hollow shapes	Good strength and hardness Alkaline
	B-11· B	38-42	10	37-49	<0.1	>1.27	>9.8	Low-heat Neutral	Low-heat Neutral
For neutral models	B-12	38-42	10	35-45	<0.12	>1.76	>13.7	For general models Wax molds	High-strength Neutral Do not mix with alkalis
For minimal-expansion models	B-13	38-43	10	45-60	<0.06	>1.47	>11.8	Reverse models Plaster copies	Minimal expansion Standard Alkaline
	B-13R	38-43	7	32-42	<0.07	>1.76	>12.8	Reverse models Plaster copies Ideal for small models	Minimal expansion Quick-setting Alkaline
	B-13TY	38-43	10	80-100	<0.06	>1.47	>11.8	Reverse models Plaster copies Ideal for small models	Minimal expansion Quick-setting Alkaline
	B-13MS	48-52	7	32-42	<0.08	>1.67	>11.8	For plaster carving Resin reverse models	Good workability Alkaline
	B-13MSZ	48-52	5	23-31	<0.1	>1.67	>11.8	For plaster carving Resin reverse models	Good workability Instant-setting Alkaline

**Orthopedic Plaster** Main reference values

Category	Product name	Water-mixing amount (%)	Influx time (minutes)	Finish time (minutes)	Expansion (%)	Strength (MPa)		Uses	Features
						Wet tension	Wet compression		
For orthopedic use	Orthopedic exsiccated plaster	70-72	6-8	25-35	0.23	1.2	7.3	For plastic surgery (powdered)	Snow-white, high-strength
Hard plaster bandages	Gyp-tape, 2-cleft (15 × 450 cm)	-	-	-	-	-	-	For plastic surgery (hard-coating type)	High-strength Non-flaking
	Gyp-tape, 3-cleft (10 × 450 cm)	-	-	-	-	-	-		

**Miscellaneous Plaster** Main reference values: ≥ means greater than, ≤ means less than

Category	Product name	Water-mixing amount (%)	Influx time (minutes)	Finish time (minutes)	Expansion (%)	Strength (MPa)		Uses	Features
						Wet tension	Wet compression		
For art and teaching materials	For teaching aterials	71-77	6-8	-	-	-	-	For art, for teaching materials	Snow-white, high-strength
For grinding	For grinding	66-70	7-9	17-23	<0.1	>0.7	>3.9	Optics glass Grinding fixed	Minimal expansion
	X Plaster	70-76	6-8	<25	<0.1	-	-		

**Subsidiary Materials**

Category	Product name	Packaging	Units of delivery	Uses	Features
Silicone rubber (RTV)	NS-300	1kg	1	Plaster mold matrices, wax, and complex-shaped matrices made from resin, etc.	Condensation type, minimal shrinkage Soft
	NS-570	1kg	1	Plaster mold matrices, hollow casting matrices	Condensation type, minimal shrinkage Good tensile strength
	NS-1000	1kg	1	Plaster mold matrices, urethane flow matrices	Condensation type, minimal shrinkage
Clay	Leon Clay S	1kg	20	For plaster, for resin, for general use	Spill prevention, clearance Regular hardness
	Leon Clay H	1kg	20	For plaster, for resin, for industrial use	Spill prevention, clearance Moderate hardness
	Leon Clay D	1kg	20	For plaster, for resin, for precision use	Spill prevention, clearance High hardness
Mold-releasing agent	Mold-releasing agent for plaster	900ml	1	For plaster (paraffin-based)	Good mold-releasability
	Potash soap S	18kg	1	For plaster	Good mold-releasability
Additive for surface hardening and waterproof sealing	N-Seal A (main agent)	1kg	1	For plaster	Additive for increasing surface hardness and waterproof sealing
	N-Seal B (solvent)	1kg	1		
For Grand	White Line	20kg	1	Lane lines for race tracks	Safe and hygienic, low-polluting Calcium carbonate

**Synthetic wood** Main reference values

Product name	Size (unit of delivery and item weight)	Bulk density	Porosity (%)	Bending strength (kgf/cm <sup>2</sup> )	Temperature tolerance (° C)	Thermal expansion (%)	Uses	Features
Pearl board	520 × 1565 × 50mm (2 sets per box, 47 kg)	0.6	60	120 ± 10	150	± 0	For FRP and CFRP Prepreg molding	Good cutting capability, good chipping, lightweight, good dimensional precision, heat-tolerant, not subject to deterioration, rotting, or pest damage
	1040 × 1565 × 50mm (16 sheets, 752 kg)						NC processing materials	
Ace Lite AH	1040 × 1565 × 50mm (16 sheets, 752 kg)						Hollow molds preparation	Good cutting capability, lightweight good dimensional precision, heat-tolerant, not subject to deterioration, rotting, or pest damage