

POVAL



Poval is a functional and versatile product and an integral part of many industries.

Markets and Applications:

Textiles – sizing and finishing
Paper – coating / binding / reinforcement
Adhesives and caking agents
Emulsifying and Dispersion agent
Film and moulded products – water soluble and water insoluble
Packaging
Cosmetics
Electro-processing / Electrorefining
PVC manufacture

Characteristics:

Water Soluble
High bonding strength
Surface activeness
Mechanical strength

Grades:

We can offer a range of grades based on combinations of viscosity and hydrolisation.
Fully and partially hydrolysed grades
High and low viscosity



CHEMICALS

Local service, global reach

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POVAL

POVAL can be classified mainly with polymerization degree, which is often indicated as solution viscosity, and hydrolysis degree. Modified grades are also available to satisfy specified requirements. The most suitable grade can be selected from the range of POVAL.

Table 1 POVAL General Grades List

Classification	Grade	Hydrolysis Degree [mol-%]	Viscosity (4%, 20°C) [mPa·s]	pH (4%, 25°C)	Volatile Matter [%]	Sodium Acetate [%]	Product Shape		
							G	P	F
Fully Hydrolyzed	K-05	98.0 ~ 99.0	5.2 ~ 6.6	5.0 ~ 7.0	≤5.0	≤1.5	●		
	K-17E	97.5 ~ 98.5	26 ~ 32	5.0 ~ 7.0	≤5.0	≤1.0	●		
	K-17C	98.7 ~ 99.7	24 ~ 30	5.0 ~ 7.0	≤5.0	≤1.2		●	●
	K-24E	97.5 ~ 98.5	54 ~ 66	5.0 ~ 7.0	≤5.0	≤1.0		●	
Medium Hydrolyzed	H-12	95.0 ~ 96.5	10 ~ 15	5.0 ~ 7.0	≤5.0	≤1.0		●	
	H-17	95.0 ~ 96.0	25 ~ 31	5.0 ~ 7.0	≤5.0	≤1.0	●	●	
	H-24	95.0 ~ 96.0	52 ~ 64	5.0 ~ 7.0	≤5.0	≤1.0	●	●	
Partially Hydrolyzed	B-05	86.5 ~ 89.5	5.0 ~ 6.0	5.0 ~ 7.0	≤5.0	≤1.5	●		●
	B-17	87.0 ~ 89.0	21 ~ 25	5.0 ~ 7.0	≤5.0	≤1.0	●		●
	B-20	87.0 ~ 89.0	27 ~ 33	5.0 ~ 7.0	≤5.0	≤1.0	●	●	●
	B-24	86.0 ~ 89.0	40 ~ 48	5.0 ~ 7.0	≤5.0	≤1.0	●	●	●
	B-33	87.0 ~ 89.0	98 ~ 122	5.0 ~ 7.0	≤5.0	≤1.0		●	

* Product Shape : G = Granule, P = Powder, F = Fine Powder

Table 2 POVAL Special & Unique Grades List

Classification	Grade	Characteristics	Main Application	Hydrolysis Degree [mol-%]	Viscosity (4%, 20°C) [mPa·s]	pH (4%, 25°C)	Product Shape		
							G	P	F
DENKA POVAL	K-17U6	Fine Powder	Int. Binder	≥99.0	26 ~ 31	5.0 ~ 7.0			●
	K-VG	Fine Powder	Int. Binder	98.7 ~ 99.7	24 ~ 30	5.0 ~ 7.0			●
DENKA SIZE	NP-05F	Low Hydrolyzed	Fiber	76.5 ~ 81.0	(4 ~ 7)	5.0 ~ 7.0	●		
	EP-130	Hydrophobic Modified	Adhesive	96.0 ~ 98.0	110 ~ 180	5.0 ~ 7.5	●		
	U-12	High Hydrolyzed	Adhesive	≥99.5	11.5 ~ 15.5	6.0 ~ 11.5		●	
	PC-1000	for Offset Printing	Paper	Fully Hydro.	20 ~ 30	5.0 ~ 7.0		●	
	PC-2000	High Barrier Property	Paper	Fully Hydro.	85 ~ 125	5.0 ~ 7.0		●	
	PC-5000F	Low Staining Property	Paper	Fully Hydro.	20 ~ 30	(5.0 ~ 7.0)		●	
	PC-5500	Low Staining Property	Paper	Fully Hydro.	20 ~ 30	(6.0 ~ 9.0)		●	
HV Polymer	W-100	Water Resistance	Paper	Fully Hydro.	500 ~ 1500*	5.0 ~ 7.0		●	
	D-100	Hydrophobic Modified	Adhesive	86.5 ~ 89.0	43 ~ 70*	—	●		●
Dispersant	F-300S	Hydrophobic Modified	Binder	93.0 ~ 97.0	100 ~ 350*	—			●
	B-24N	High Dispersing Ability	Emulsion	86.0 ~ 89.0	40 ~ 48	5.0 ~ 7.0	●		
	W-20N	High Dispersing Ability	PVC	78.5 ~ 80.5	37 ~ 43	5.0 ~ 7.0	●		
	W-24N	High Dispersing Ability	PVC	78.5 ~ 80.5	44 ~ 55	5.0 ~ 7.0	●		
	MP-10	Double Bond Modified	PVC	70.5 ~ 74.5	9.0 ~ 13.0	5.0 ~ 7.5	●		
MP-10R	Double Bond Modified	PVC	70.5 ~ 74.5	6.0 ~ 9.0	5.0 ~ 7.5	●	●		

* Solid Content in Viscosity Measurement : W-100 = 12.5%, D-100 = 2%, D-300F = 3%

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SIZE : Suitable especially for fiber sizing, paper sizing and adhesive applications. Softness, water resistance, adhesion strength and wettability can be improved.

HV Polymer : Modified grades suitable for adhesive and binder applications. Superior control can be provided in viscosity and bonding strength.

Dispersant : Suitable for a dispersant or an emulsifier for the polymerization of vinyl acetate emulsion and vinyl chloride. High dispersing effect can be provided.



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