



Aqueous Formaldehyde-free PVB Resin



Characteristics

Aqueous PVB resin can be divided into different levels according to their viscosity and degree of acetalization.

Specifications and grades	SX-01	SX-02	SX-03
(25°C) viscosity	300-1000mpa.s	1000-2000mpa.s	2000-3000mpa.s
Solid content	20-25%	20-25%	20-25%
Formaldehyde content	0	0	0
Deionized water content	≥75%	≥75%	≥75%
pH value	6.8-7.2	6.8-7.2	6.8-7.2
Solid content ≤ 25% (the below data refers to solid content as 100%)			
Butyral content	≥11%	≥11%	≥11%
Acetate content	≤ 3%	≤ 3%	≤ 3%
Hydroxy content	80 - 86%	80 - 86%	80 - 86%
Free acid	≤ 0.5 %	≤ 0.5 %	≤ 0.5 %

Recommended uses

1. Paper: printing inks and coatings
2. Textile: surface coatings
3. Wood: primers and adhesives
4. Metals: steel, aluminium, ...

Product appearance

Colorless or light yellow solution, with a little smell of ethanol

PVB resin meets the following regulations regarding food-contact plastic materials

1. The REGULATION (EC) No. 2004/19/EC- ANNEX II A;
2. The COMMISSION REGULATION (EU) No. AP96(5)- ANNEX II,1 on surface paint materials and articles intended to come into contact with food surface.
3. The United States food and drug administration's 21 CFR § 175.105 adhesive, 21 CFR § 175.300 resin and polymer coating, 21 CFR § 176.170 paper composition and paper board contact with water and high fat food.

Product's main characteristics

1. Water based PVB resin is suitable for paper printing inks and coatings, wood primer paint and wood adhesives, textile surface coatings. It has excellent adhesion force to paper, wood and textiles. Dried under high temperature, it also has good adhesion force to some metal materials like steel and aluminium.



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2. Water based PVB resin as the basis of printing ink shows a low solvent resistance, good liquidity and good waterproof property. It can be independently used as the basic resin, or together with waterborne polyurethane and water borne epoxy resin. It is not recommended to being used with water based acrylic resin.
3. When solution shall be further diluted, please use the allocation proportion of ethanol:water = 1:1. If drying needs to be accelerated, directly add some alcohol solvent.
4. To make the dry paint film resistant to water or solvent, add in the aqueous PVB resin the agents that can react with hydroxyl additives or can have cross-linking reaction of the fertilizer. In general, the addition of these additives won't affect the performance of the single components of the product.
5. Water based PVB resin has good wettability and is ideal for pigment dispersions. The formed paint film has good weatherability characteristics.
6. Non-toxic, tasteless, odorless, no aromatic element, no heavy metals
7. In order to produce industrial coating baking varnish, recommended temperature is 120-150°C, 15 to 20 minutes, in order to achieve the following indicators: Impact resistance ≥ 100 , flexibility 1, adhesion 0, hardness 4-5, anhydrous ethanol 3-48 hours, excellent yellowing resistance, excellent salt fog resistance.

Solvent selection

Aqueous PVB resin can be applied with the following solvents:

1. Alcohols like methanol, ethanol, propanol, butanol, isobutanol, diacetone alcohol, benzyl alcohol
2. Ethers like 1,2-propylene glycol, 1-monomethyl ether, ethylene butyl ether, and 3-methoxy-1-butyl ether
3. Esters like glycolic acid ester
4. Ketones like cyclohexanone
5. Isocaprylic acid dryer

Package

1mt IBC containers

Storage

Under dry and cool (25°C or less) conditions, the product can be stored for at least 12 months if sealed in original packaging. Over shelf life, the product can still be used if the inspection indicators still meet its requirements. Untight seal may cause resin after-tack, and make liquidity poor.

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