

# 全国功能高分子行业委员会 上海宇昂水性新材料科技股份有限公司

China Functional Polymer Industry Committee Shanghai Yuking Water Soluble Material Tech Co.,Ltd

# **Technical Data Sheet**

**PVP-K** 

### **Product Information**

Chemical Name Homopolymer of Vinylpyrrolidone

CAS # 9003-39-8

Formula (C6H9NO)n

Synonym PVP K

**Chemical Structure** 

# Description

Povidone is a hygroscopic polymer, supplied in white or creamy white powder or flakes, ranging from low to high viscosity & low to high molecular weight, which characterized by K Value. It's easily soluble in water and many other organic solvents, with excellent hygroscopisty, film-forming, adhesive, chemical stability and toxicological safeness characters.

## **Specification**

Povidone		K17	K25	K30	K90
Appearance		White or off-white powder			
Solubility		Freely soluble in water, in ethanol (96%) and in methanol, very slightly soluble in acetone.			
Appearance of Solution		Clearly and not more intensely colored than reference solution B6,BY6 or R6			
Identifications		Meet Requirements			
K value	7	15.3-18.4	22.5-27.0	27-32.4	81-97.2
N- USP26	%max	0.1	0.1	0.1	0.1
Vinylpyrrolidone (Impurity A) Current US ppm max	SP/EP/BP	10	10	10	10
Moisture	% max	5.0	5.0	5.0	5.0
Solid content	% min	95	95	95	95
pH value(5%in aqueous solution)		3.0-5.0	3.0-5.0	3.0-5.0	4.0-7.0
Sulphate Ash	% max	0.1	0.1	0.1	0.1
Nitrogen content	%	11.5-12.80	11.5-12.80	11.5-12.80	11.5-12.80
2-Pyrrolidone (Impurity B)	% max	3.0	3.0	3.0	3.0
Aldehyde(as acetaldehyde)	ppm max	500	500	500	500
Heavy metal (as Pb)	ppm max	10	10	10	10
Hydrazine	ppm max	1	1	1	1
Formic acid	% max	0.5	0.5	0.5	0.5
Peroxide(As H2O2)	ppm max	400	400	400	400

- 1 -

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Safety

Always refer to the Material Safety Data Sheet (MSDS) for detailed information on safety

## **Applications**

#### Pharmaceuticals:

Povidone K 30 and K 25 is a new and excellent pharmaceutical excipient. It is mainly used as binder for tablet, dissolving assistant for injection, flow assistant for capsule, dispersant for liquid medicine and pigment, stablizer for enzyme and heat sensitive drug, coprecipitant for poorly soluble drugs, lubricator and antitoxical assistant of eye drug. PVP has been used as excipients in more than one hundred drugs.

### Cosmetics:

PVP K series can be used as film forming agent, viscosity-enhancement agent, lubricator and adhesive. They are the key component of hair sprays, mousse, gels and lotions & solution. They are also convenience assistant in skin care product, hair-drying reagent, shampoo, eye makeup, lipstick, deodorant, sunscreen and dentifrice.

## Other Utility:

Suspensant, disperser and emulsifier

Glass fiber

Detergent

Paint and coating

Film

**Tableting** 

Plastics and resin

Ink

Textile dying and printing

Adhesive

TV tube

### **Packaging**

25kg fiber drum.

8-9mt per 20ft container

### Storage & Handling

Povidone can be stored at room temperature (max.25°C) in the unopened original containers for at least 3 years. The storage temperature should be kept below  $25^{\circ}$ C

Always refer to the Material Safety Data Sheet (MSDS) for detailed information on handling and disposal.

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchant ability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall we be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if we has been advised of the possibility of such damages.