

***kuraray***

*kuraray*  
***poval***  
***exceval***  
***elvanol***

**We bring life to paper.**

Polyvinyl alcohol specialities  
for paper applications





## KURARAY POVAL™ and EXCEVAL™ the solution for your most demanding needs

KURARAY POVAL™ and EXCEVAL™ are soluble polymer powders that dissolve in water to give viscous transparent solutions. Applications cover a broad spectrum of uses in the

paper, textile, construction and adhesives industries as well as in the cosmetics and packaging sectors.

### Paper industry applications

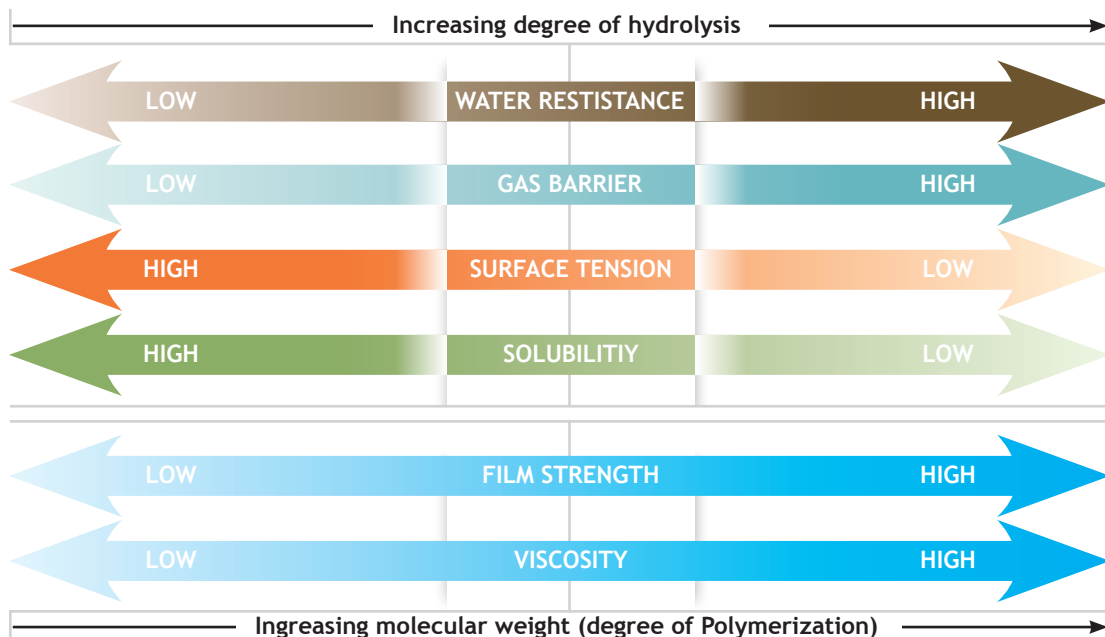
Due to the wide range of grades and versatility, KURARAY POVAL™ and EXCEVAL™ facilitate the functionality of specialized papers.

- Coated Papers
- Paper Board Liner
- Banknote Paper
- Silicone Release Liner
- Food Wrapping paper
- Inkjet Paper
- Thermal Paper
- Pressure Sensitive Paper

### Basic property of KURARAY POVAL™ and EXCEVAL™ for paper applications

Kuraray the widest range of PVOH grades available. Conventional KURARAY POVAL™ grades are mainly characterized by their so-

lution viscosity (a function of the degree of polymerization and molecular weight) and degree of hydrolysis.



EXCEVAL™ is Ethylene modified PVOH, which enhances water resistance and film forming performance beyond that of conventional PVOH resins for coated papers.

Additionally, Kuraray offers various other functionally modified PVOH grades which meets to each special paper applications.

## Bright ideas for paper applications

In paper applications our products play an important role as carriers for optical brighteners in line with the trend toward enhanced paper whiteness.

Simultaneously, they serve as thickening and water retention aid for better productivity.

Owing to the insolubility of polyvinyl alcohol in non aqueous solvents, KURARAY POVAL™ and EXCEVAL™ grades are ideal for forming barrier coatings, e. g. barrier for silicone oil, grease, oil, oxygen or against migration of mineral oil.

In other sectors KURARAY POVAL are utilized as powerful binders to produce matt, glossy or high speed industrial inkjet papers. Also KURARAY POVAL™ and EXCEVAL™ is used for

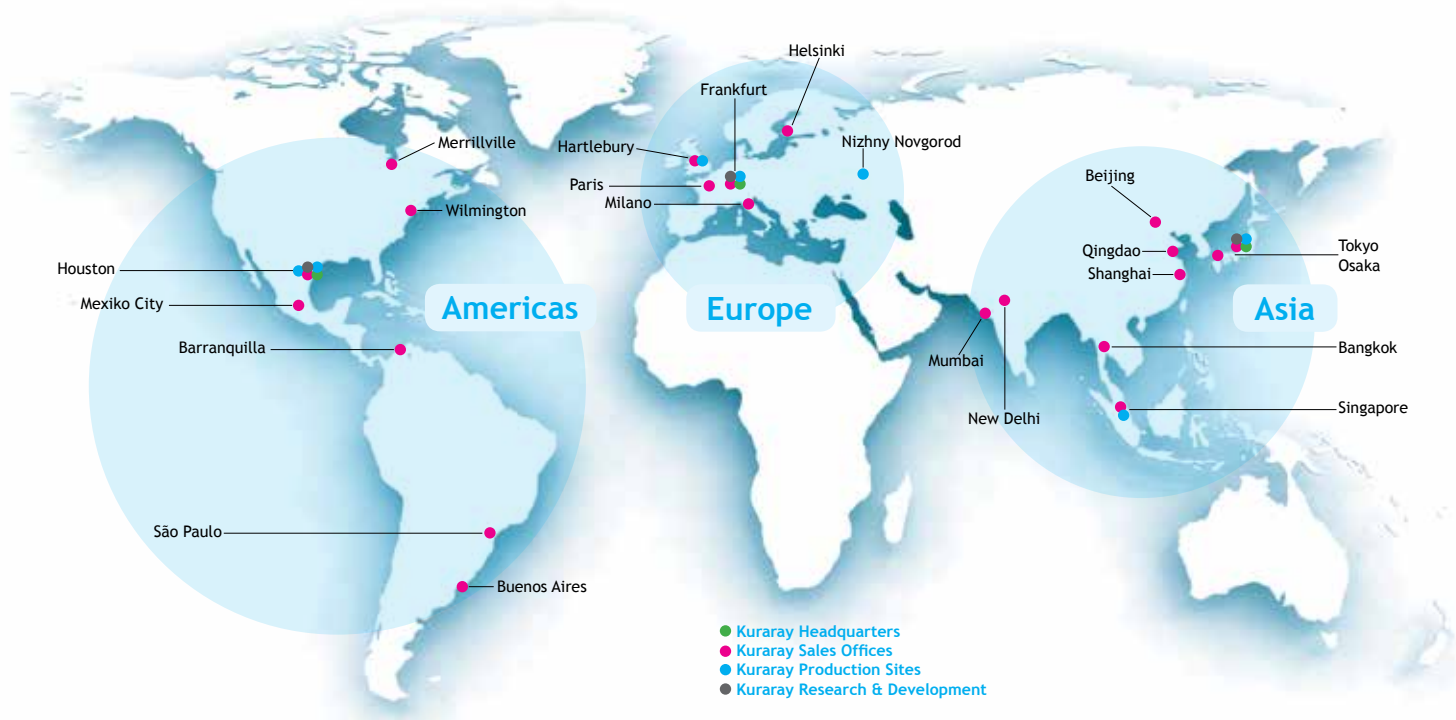
thermal dye stuff dispersant, thermal top coat agent under a combination with cross linking agent for thermal paper / label application.

Besides their excellent performance in paper applications, PVOH grades keep food and other products fresh when these products are covered with tear-resistant films having neutral taste and acting as a barrier to aromas.





## Adding value to your products - worldwide



KURARAY POVAL™, EXCEVAL™, ELVANOL™ and MOWIFLEX™ are the trademarks for polyvinyl alcohols made by Kuraray. Their key characteristics – outstanding film-forming properties and high binding strength – add real value to your products. Our polymers are water-soluble, highly reactive, crosslinkable and foamable. They have high pigment binding capacity, protective colloid characteristics and thickening effects. The physical and chemical properties of KURARAY POVAL™ make it ideal for a wide variety of applications, ranging from adhesives through paper and ceramics to packaging

films. Many of our polymers are food contact-approved and thus suitable for food applications. Ecologically KURARAY POVAL™ is advantageous due to its biodegradability and the fact that combustion does not generate residues. It is available in various particle sizes from granules to fine powders.

Kuraray produces its wide range of KURARAY POVAL™ grades in Japan, Singapore, Germany and the USA. Kuraray's global production and service network make us your partner of choice for innovative high-quality PVOH resins.

**KURARAY - Here to Innovate.**

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