

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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**MOWIFLEX™**  
Combining strengths of  
thermoplastics and PVOH

## Optimized PVOH solutions for thermoplastic processing

Kuraray has a long history in the development of polyvinyl alcohol based products used in various industries. MOWIFLEX™, a compound of PVOH and plasticizer, has been designed in order to suit thermoplastic processing needs.

MOWIFLEX™ possesses all the properties of standard PVOH and can be processed as a thermoplastic at the same time creating the possibility to be used in various application fields. It can also be combined with other polymers to modify the properties of the end product.

Gas barrier
 Non toxic
 colourable
 Weldability & bonding

Water vapour permeability
 Low electrostatic surface charge
 Forms clear and glossy films

tensile strength

# mowiflex™

The new nomenclature of Kuraray's diverse MOWIFLEX™ product portfolio includes a reference to the mentioned properties as well as important characteristics like solubility and melt viscosity.

## mowiflex™ C 12 XXX

### Solubility

C = cold, 25 °C  
 M = medium, 50 °C  
 H = hot, 70 °C or higher

### Melt Viscosity

12 g/10 min  
 Measuring conditions:  
 C : 190 °C, 21,6 kg load  
 M : 210 °C, 2,16 kg load  
 H : 230 °C, 2,16 kg load

### Additives/colors

T = Talc  
 Ti = Titan dioxid  
 B = blue  
 R = red  
 MS = melt spinning etc.

## Thermoplastic processing

According to its chemical and mechanical properties and especially to its thermoplastic characteristic, MOWIFLEX™ can be processed in various ways without pretreatment.

- Injection moulding
- Blow Moulding
- Rapid prototyping

## Applications

These methods of thermoplastic processing of MOWIFLEX™ result in a very broad range of applications and the use in numerous end products. Suitable MOWIFLEX™ grades for the respective applications can be seen below.

- Water soluble shapes and packaging
  - mowiflex C 600 | M 05 | H 15
- Smokable casings
  - mowiflex C 30
- 3D printing/rapid prototyping
  - mowiflex C 17
- Multilayer films
  - mowiflex C 17

## Disposal

Additionally to its non-toxic character, MOWIFLEX™ is also environmentally friendly and can be easily disposed as it undergoes biodegradation in conventional waste water treatment.

Please contact [Mowiflex@kuraray.eu](mailto:Mowiflex@kuraray.eu) for additional information about further MOWIFLEX™ products.

