

# Mowiflex™ FX 407

Polyvinyl Alcohol

Kuraray Co., Ltd.

## Message:

Modified, Liquid

Mowiflex TC is the trademark of Kuraray's new polymer compound especially designed for the requirements of thermoplastic processing. The new polyvinyl alcohol-based resin is non-toxic and can be processed by standard thermoplastic technologies (blown film extrusion, injection moulding, etc.). At the same time, Mowiflex TC acquires all the advantageous properties of polyvinyl alcohol (PVA): It is soluble in water, forms clear and glossy films and shows high tensile strength.

The properties of the Mowiflex TC compound can be well adjusted to the requirements of the desired application. Materials produced with Mowiflex TC provide excellent weldability and bonding, are easily printable and have a low electrostatic surface charge. These characteristics make the compound an ideal resin for packaging materials or as an inliner to standard packaging systems. Due to its excellent water solubility, Mowiflex TC can be used as a temporary binder as well. Additionally the compound is colourable, which makes it possible to process Mowiflex TC as a highly concentrated masterbatch. As a single component, Mowiflex TC forms films with a high barrier effect towards O2, N2, CO2, and organic substances such as fragrances and aromas. Due to its chemical structure and physical properties, Mowiflex TC is an ideal additive to standard plastics as well: Its high tensile strength for instance enable individual modification of the mechanical properties of the end product. Added to Polyamid, the water vapour permeability is dramatically enhanced. Mowiflex TC additionally can be used as an additive to biodegradable products because when dissolved in water it is biodegradable (according to Zahn Wellens Test).

Kuraray Specialities Europe supplies Mowiflex TC in standard and in customized grades, modified to meet the precise needs of your desired application. All grades are delivered as pellets, which are dust-free when processed and allow for simple and safe handling.

General Information	
Features	Barrier Resin
	Biodegradable
	Bondability
	Excellent Printability
	Flavor & Aroma Barrier
	Good Colorability
	High Clarity
	High Gloss
	High Tensile Strength
	Moisture Barrier
	Non-Toxic
	Water Soluble
	Weldable
Uses	Film
	Packaging
	Sanitary Products
Forms	Liquid
	Pellets
Processing Method	Extrusion Blow Molding
	Injection Molding

Physical	Nominal Value	Unit	Test Method
Melt Mass-Flow Rate (MFR) (190°C/21.6 kg)	31 to 47	g/10 min	
Solution Viscosity <sup>1</sup>	12 to 16	mPa · s	ASTM D445
Thermal	Nominal Value	Unit	Test Method
Glass Transition Temperature	34.0	°C	DSC
Melting Temperature	178	°C	
Additional Information	Nominal Value	Unit	
Non-Volatile Content	> 99	%	
Extrusion	Nominal Value	Unit	
Melt Temperature	183 to 188	°C	
NOTE			

1. 8% aqueous solution at 20°C  
determined by Hoppler-viscometer

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