

# MelOx Data Sheet



## Product Description

MelOx confer high oxygen barrier performance to eco-friendly packaging products that are based on paper, paperboard, plastics or bio-plastics.

The product is based on Cellulose Nano Crystals (CNC) – the building block of all living plants, a bio-based, strong, lightweight, and transparent material extracted from cellulose.

Melodea's Oxygen Barrier Coating has excellent oxygen and oil & grease barrier performance in both typical and tropical conditions.

Properties	Test Method	Value	Units
Grade	-----	F61A	
Product form	-----	Water suspension	
Solid content	-----	21 ± 2	Wt %
Deionized water	-----	79 ± 2	Wt %
Preservative	-----	Included, 100 ppm	
Antifoam agent	-----	Included	
pH	-----	3-7	
Viscosity	Brookfield, S64, 100 rpm, RT	800 ± 400	cP
<b>Barrier properties for coated paper:</b>			
Oxygen transmission rate (cc/m <sup>2</sup> ·day·atm @ 23 °C)	ASTM D3985 and F1927-50	< 0.5	Coated paper, 50% RH
		< 5	Coated paper, 70% RH
<b>Barrier properties for coated plastics:</b>			
Oxygen transmission rate (cc/m <sup>2</sup> ·day·atm @ 23 °C)	ASTM D3985 and F1927-50	< 1	Coated BOPP, 50% RH
		< 5	Coated BOPP, 70% RH
		< 1	Coated PE, 50% RH
		< 10	Coated PE, 70% RH
Oil & grease barrier	TAPPI T 559 pm-96	12	Coated paper, KIT rating
Recyclability on paper	PTS-RH:021/97	✓	

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## How to use?

- Ready for use as is.
- It is highly recommended not to dilute, modify or heat it to above 40 °C.
- Prior to applying – mix the suspension to assure homogeneity and fluidity. For IBCs, it is recommended to use an IBC mixer.
- If applying on paper – it is recommended to apply two layers of the barrier formula with a total dry coating weight of ~5 g/m<sup>2</sup>.
- The most suitable coating technologies are Rod-coater, Gravure and Curtain coating machines.

## Storage & shelf life

- Exhibits good shelf-life stability of at least 6 months in suspension form, and at least 1 year as a dry coated layer.
- Delivered in drums or IBC's.
- Since this is an aqueous dispersion, the product should be stored under cool but frost-free conditions (between 5 °C and 25 °C) out of direct sunlight.