

Melodea's Barrier Coatings on Films



Product Description

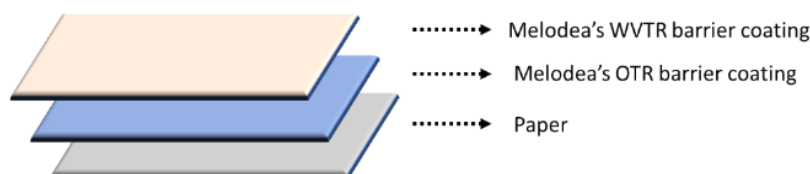
Melodea specializes in the development of solutions based on Cellulose Nano Crystals (CNC). CNC is the building block of all living plants, a strong, lightweight, and transparent material extracted from cellulose.

Melodea offers its customers a complete barrier solution against oxygen, water vapor, odor, and oil & grease that can be applied on a wide range of substrates such as paper, paperboard, BOPP, PE, PET and PLA, utilizing standard industrial coating machines.

Melodea's solution includes two water-based coating layers:

1. Oxygen, Oil & Grease barrier coating based on CNC.
2. Water Vapor, Oil & Grease barrier coating.

Paper with Melodea's barrier solution



The following table presents typical properties of paper coated with Melodea's solution:

Properties	Test method	Coated paper*	Units
Paper grammage	ISO 536	60-100	g/m ²
Total barrier layers grammage		10	g/m ²
Oxygen transmission rate	ASTM D3985 and F1927-50	< 0.1	0% RH
		< 0.5	50% RH
		< 3	70% RH
Water vapor transmission rate	ASTM F1249-13 and F3299-18	< 2	50% RH
		< 5	90% RH
		< 10**	
Grease barrier	TAPPI T 559 pm-96	12	KIT rating
Water absorption	ISO 535 Cobb 60	< 1	g/m ²
Recyclability & Repulpability	PTS-RH:021/97 (Draft Oct 2019)	✓	

* Different types of papers can be coated.

** Please note that for a less demanding WVTR properties (< 10) use a different WVTR coating, with the advantage of a sealing strength of 4 N/in.



Melodea
Bio Based Solutions

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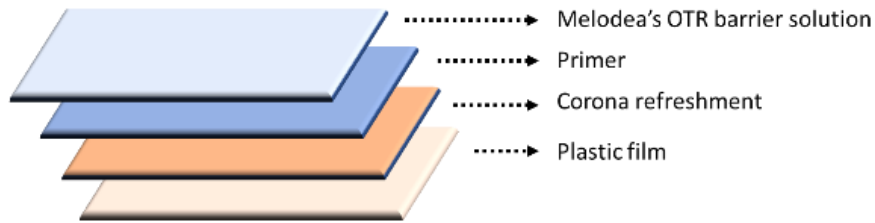
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Melodea's Barrier Coatings on Films



Plastic film with Melodea's barrier solution



The following table presents typical properties of plastic film coated with Melodea's solution:

Properties	Test method	Products		Units	
		Coated PET	Coated BOPP		
Film thickness		12	30		μm
Total barrier layer grammage		2-3	3-5		μm
Oxygen transmission rate	ASTM D3985 and F1927-50	< 0.1	< 0.1	0% RH	cc/m ² ·day·atm @ 23°C
		< 0.5	< 0.5	50% RH	
		< 3	< 3	70% RH	

Performance values are indicative and may vary due to technical modifications.