

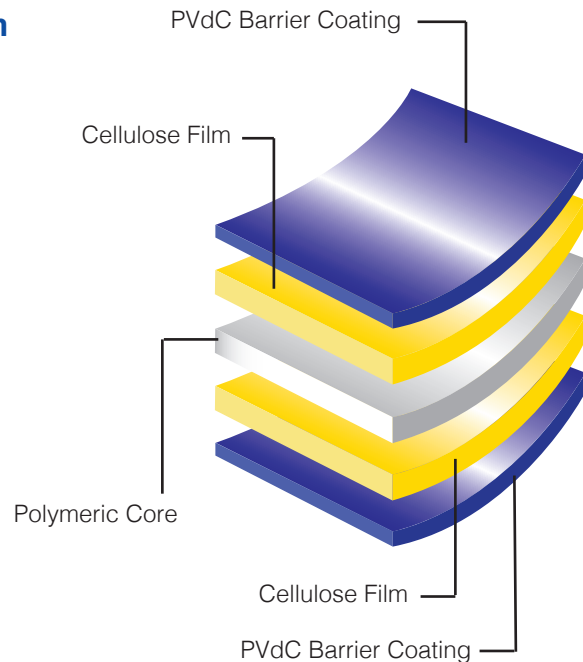
CelloPlus™

Data

Features - Reinforced Cellophane Film

CelloPlus films are a composite structure of 2 thin Cellophane films with a thin polymeric web in the center. The finished films are coated with PVdC on both sides.

- Currently available in 2 versions:
CelloPlus T - Transparent version
CelloPlus M - Metallized version
- Excellent barrier to water vapor, gases and aromas
- Excellent dead-fold characteristics
- Resistant to oils and greases
- Heat-sealable on both sides
- Both sides of the film are receptive to inks, adhesives and tear tapes
- Excellent durability and stability
- High gloss
- Inherent anti-static properties



Applications

CelloPlus has been developed for a wide range of applications requiring high moisture and gas barrier. It has properties that compare favorably with classical laminations. Generally used as a single film for medium to large packs on vertical or horizontal form-fill-seal machines.

Particularly suitable for the packaging of snack foods, dried foods, nuts and coffee. It is also widely used for high quality bag making applications. Its deadfold and rigidity make it particularly suitable for block-bottom bags.

Technical Properties (Typical Values)

Property	Test Basis	Test Conditions	Units	CelloPlus T	CelloPlus M
Thickness	Futamura Test		mil	1.89	1.90
Yield	Futamura Test		in ² /lb	11300	10400
Permeability to: Water vapor	ASTM E96	100°F 90% RH	g/100in ² .24 hrs	<0.4	<0.3
Oxygen	ASTM F 1927	73°F 0% RH	cc/100in ² .24 hrs	<0.07	<0.02
Tensile strength	ASTM D 882		kpsi MD TD	22 16	17.7 13.5
Elongation at break	ASTM D 882		% MD TD	30 85	30 110
Seal strength	Futamura Test	275°F; 0.5 secs; 10 psi	g(f)/1½in	400	350

All properties are tested under standard laboratory conditions: 73±4°F; 50±5% RH, unless otherwise stated.
Where relevant, tests are based on international testing standards.
MD - Machine Direction TD - Transverse Direction

Roll Specifications

Nominal Roll Diameters

Film	Length/(feet)			
CelloPlus T	2600	5200	10400	15600
CelloPlus M	2550	5100	10200	15300
Outside diameter for 3in core	9½in	13in	18in	ns
Outside diameter for 6in core	ns	14in	18¾in	22½in

Food Contact

CelloPlus films are formulated to comply with US legislation for many room temperature food contact applications. Customers intending to use the film in a food contact application must request the Declaration of Compliance which gives full details. For information on other countries please contact your Futamura Sales Office.

Health and Safety Guidelines

For Health and Safety information, please refer to literature reference A190.

Film Storage

To maintain the high quality of these products during storage it is recommended that all Futamura Cellulose films should be stored in their original wrapping away from any source of local heating or direct sunlight. Recommended conditions of storage are:

Temperature: 60-75°F

Relative Humidity: 35-55%

CelloPlus films should be converted within 6 months from the date of manufacture and stocks should be used in rotation according to date of delivery.

Films should be allowed to reach operating room temperatures for 24 hours before use.



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