



RECYCLABLE PP MONO-MATERIAL SOLUTION WITH HIGH BARRIER OPP films (3-PLY)

Delivering high performance with PP-based laminates for VFFS formats

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MONO-MATERIAL SOLUTION

PRINT WEB:	BICOR 12MB100 – heat stable OPP film
BARRIER WEB:	METALLYTE 16MM883 – Ultra high barrier vacuum metallized OPP film
INNER WEB:	Low SIT cast PP film

CONVERSION:

Innovative Packaging Solutions

WIPF AG WIDT

Features

- -• Mono-material compositions (>90% PP)
- Outstanding barrier to light, H₂O, gases, (WVTR 0.1, OTR 0.1), aromas and mineral oils
- Improved heat resistant OPP outer web with low seal initiation temperature CPP sealant
- Much reduced packaging weight than most 3-ply non- recyclable solutions (e.g. PET/ALU/PE)
- Improved mechanical properties (e.g. puncture resistance)

PACKAGING MACHINERY

SUPPLIER:	WOLF VERPACKUNGS- MASCHINEN GmbH WOLF
FORMAT:	VFFS – side gusseted bags
TYPE:	LINIE and GREEN models

Benefits

- Full compatibility for mechanical recycling in PP or mixed PO streams
 Conforms to CEFLEX recycling guidelines
- -o Alu-free, PET-free, paper-free
- -• Great barrier keeps product safe while tasting & feeling fresh!

Provides outstanding protection for sensitive powdered foods with tight
hermetic seals

Robust VFFS performance for demanding
 Modified Atmospheric Packaging (MAP)

Delivers double-digit percent packaging weight reduction







BICOR[™] MB100 is a very thin transparent non heat sealable OPP film with improved heat stability (low shrinkage) and very high Modulus for optimal machinability during conversion (e.g. rotogravure print) and on VFFS machines

Bicor[™] Metally

Metallyte[™] MM883 is a transparent ultra high barrier (UHB) vacuum metallized film with high optical density delivering great moisture barrier (WVTR 0.1) and great oxygen barrier (OTR 0.1) along with excellent light protection (OD 2.8)

A low SIT cast PP is recommended in combination with an improved heat stable OPP to help transition away from more heat stable PET-ALU structures

An **MB100/MM883/CPP** 3-ply laminate is ideal for most VFFS applications for most demanding powder food or beverage applications requiring a recyclable PP mono-material solution that was previously in non-recyclable constructions (e.g. PET/ALU/PE, PET/Met-PET/PE, Paper/ALU/PE).

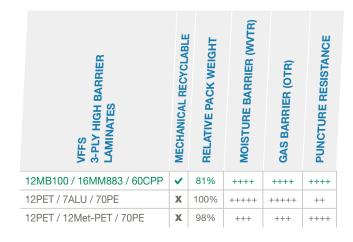


Laminate made by WIPF: 12MB100/16MM883/60Cast PP

Contact your Jindal Films representative for more information WWW.jindalfilms.com

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Demanding VFFS formats usually resort to 3-ply non-mechanically recyclable laminates. They can be replaced with 3-ply laminates using higher performance PP films to deliver improved recyclability and conform to CEFLEX design guidelines in Europe.



Jindal Films data

Packaging

In some cases machine modifications are required as PP based laminates do not have the folding properties (i.e. dead-fold) delivered by Aluminum foil based strucutres.

For use in market segments typically using VFFS either in bag-in-box or as stand alone formats:

- Sensitive powdered foods such infant formulas
- Sensitive powdered beverages such as dry powder milk or dehydrated beverages
- Potentially any segment where high barrier with long shelf life is required



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