

# T TOBACCO FILMS

05/2023

**Jindal**  
Films

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## DISCLAIMER

The figures and the data provided in this brochure are consistent with the current state of our knowledge and are intended to provide general information about our products and their applications.

The do not constitute a guarantee of any specific product attributes or the suitability of products for specific applica-tions.

Any existing commercial rights or patents must be observed.

## ABOUT JINDAL FILMS

Jindal Films is an industry leader in the development and manufacture of biaxially oriented polypropylene (BOPP) and polyethylene (BOPE) films designed for flexible packaging labeling, tobacco and technical applications. The Jindal Films product range includes multi-layer clear, white opaque, metalized and water-based coated films.

Jindal Films has almost 50 years of experience in the BOPP market and is a supplier of high-quality BOPP products and tailor-made, intelligent solutions in more than 90 countries. Jindal has positioned itself as a worldwide premium provider with profound film expertise. Numerous patents prove the company's innovative strength. Jindal delivers solutions that are globally applicable, easy to handle, market differentiated and at the same time economical.

In a network with partners, Jindal Films develops application oriented solutions and new service concepts while providing first-class technical service to customers all over the world.

## TOBACCO FILMS



Jindal Films and Treofan have been supplying the tobacco industry for several decades with a diverse product range dedicated to pack wrap, carton overwrap, clear collation wrap as well as inner liner films for the tobacco segment.

We pioneered 16 micron thin film to support packaging weight reduction and helped to establish high shrink film to improve the look of cigarette hard packs. Today, Jindal Films continues to refine our portfolio by enhancing key properties that influence the protection and presentation of tobacco products as well as machinability and performance during packaging or print processes and in automated vending. This booklet presents the Jindal Films tobacco film range for classical soft and hard packs, bundle overwrap, direct (clear) bundle wrap as well as inner liner/sealed pack. Jindal Films is open to developing new packaging concepts for conventional and alternative tobacco products. If you wish to discuss your requirements, please contact the Tobacco team under [tobaccofilms@jindalfilms.com](mailto:tobaccofilms@jindalfilms.com).

# Non Shrink

Density 0.91 g/cm<sup>3</sup>



# Non-Printable Overwrap Films

| Type                    | Structure   | Nominal thickness (µm)   | Unit weight (g/m <sup>2</sup> ) | Yield (m <sup>2</sup> /kg) |
|-------------------------|---|--|---------------------------------|----------------------------|
| LEO                     |  | 20   | 18.2                            | 54.9                       |
| Description/Application |   | Value grade for pack and bundle overwrap                             |                                 |                            |
| ZNA                     |  | 20   | 18.2                            | 54.9                       |
| Description/Application |   | Premium grade for pack and bundle overwrap, vending machine approved |                                 |                            |

# Medium Shrink

Density 0.91 g/cm<sup>3</sup>



# Non-Printable Overwrap Films

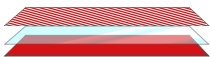
| Type                    | Structure   | Nominal thickness (µm)   | Unit weight (g/m <sup>2</sup> ) | Yield (m <sup>2</sup> /kg) |
|-------------------------|---|--|---------------------------------|----------------------------|
| BEO                     |  | 16   | 15.0                            | 66.6                       |
|                         |   | 18   | 16.4                            | 61.1                       |
|                         |   | 20   | 18.2                            | 54.9                       |
| Description/Application |   | Value grade for pack and bundle overwrap                             |                                 |                            |
| ZSA                     |  | 16   | 15.0                            | 66.6                       |
|                         |   | 18   | 16.4                            | 61.1                       |
|                         |   | 20   | 18.2                            | 54.9                       |
| Description/Application |   | Premium grade for pack and bundle overwrap, vending machine approved |                                 |                            |

# High Shrink

Density 0.91 g/cm<sup>3</sup>

# Non-Printable Overwrap Films

| Type                    | Structure   | Nominal thickness (µm)  | Unit weight (g/m <sup>2</sup> ) | Yield (m <sup>2</sup> /kg) |
|-------------------------|---|---|---------------------------------|----------------------------|
| ZXA                     |  | 18*   | 16.4                            | 61.1                       |
|                         |   | 20*   | 18.2                            | 54.9                       |
|                         |   | 25  | 22.8                            | 43.9                       |
| Description/Application |   | Premium grade for pack and bundle overwrap, excellent moisture barrier and vending machine approved |                                 |                            |
| ZPA                     |  | 16  | 15.0                            | 66.6                       |
|                         |   | 18*   | 16.4                            | 61.1                       |
|                         |   | 20*   | 18.2                            | 54.9                       |
| Description/Application |   | Premium grade for pack and bundle overwrap, vending machine approved for tropical conditions        |                                 |                            |

| Type                           | Structure   | Nominal thickness (µm)   | Unit weight (g/m <sup>2</sup> ) | Yield (m <sup>2</sup> /kg) |
|--------------------------------|---|--|---------------------------------|----------------------------|
| ZSD                            |  | 16   | 15                              | 66.6                       |
|                                |   | 18   | 16.4                            | 61.1                       |
|                                |   | 20   | 18.2                            | 54.9                       |
| <b>Description/Application</b> |   | Premium grade for pack and bundle overwrap, printable for promotional and price communications; medium shrink. |                                 |                            |

### Surface treatment: how to determine the treatment level of Jindal corona treated printable overwrap films

The treated surface of ZSD film can be identified using conventional treatment pens. In order to determine the exact treatment level of the surface, please use special test liquids which indicate different surface tensions. We recommend the following procedure in order to obtain valid and reproducible results:



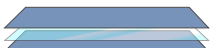
- immerse the sample in n-heptane for five minutes
- dry the sample in air under ambient conditions,
- avoiding any physical contact with the film surface
- now measure the treatment level with the usual test liquids

Jindal-Treofan ZSD film cannot be boost treated inline!

# Acrylic Coated

Density 0.91 g/cm<sup>3</sup>



# Collation Bundle Wrap Films

| Type                    | Structure   | Nominal thickness (μm)  | Unit weight (g/m <sup>2</sup> ) | Yield (m <sup>2</sup> /kg) |
|-------------------------|---|---|---------------------------------|----------------------------|
| ZNC                     |    | 20  | 18.2                            | 54.9                       |
|                         |   | 25  | 22.8                            | 43.9                       |
|                         |   | 30  | 27.3                            | 36.6                       |
|                         |   | 40  | 36.4                            | 27.3                       |
| Description/Application |   | Premium acrylic coated film for clear bundle (direct) wrap and OTP overwrap.  |                                 |                            |
| ZSC                     |    | 23  | 20.9                            | 47.8                       |
|                         |   | 25  | 22.8                            | 43.9                       |
| Description/Application |   | Transparent both sides acrylic coated BOPP film with balanced shrink. It provides high moisture and aroma barrier properties. |                                 |                            |
| MBT666                  |  | 20  | 18.2                            | 55                         |
|                         |   | 25  | 22.7                            | 44                         |
|                         |   | 40  | 37.3                            | 26.8                       |
| Description/Application |   | Premium acrylic coated film for clear bundle (direct) wrap.   |                                 |                            |

# Inner Liner

Density 0.91 g/cm<sup>3</sup>

## Sealed Pack Films

| Type                    | Structure   | Nominal thickness (μm)   | Unit weight (g/m <sup>2</sup> ) | Yield (m <sup>2</sup> /kg) |
|-------------------------|---|--|---------------------------------|----------------------------|
| MB068                   |  | 19   | 17.2                            | 58.1                       |
| Description/Application |   | Transparent polypropylene film, one side acrylic coated and one side treated. Mainly proposed for use in lamination. |                                 |                            |
| ZMD                     |  | 20   | 18.2                            | 54.9                       |
| Description/Application |   | Tailored sealing range and excellent slip properties for laminate structures used as inner liner.                    |                                 |                            |



| Film Type   | Soft Pack | Hard Box | Display Carton | Clear Bundle Wrap | Printable | Inner Liner Sealed Pack | Other Tobacco Products |
|---|-----------|----------|----------------|-------------------|-----------|-------------------------|------------------------|
| <b>Non-Printable Overwrap Films – Non Shrink</b>    |           |          |                |                   |           |                         |                        |
| LEO   | X         | X*       | X              |                   |           |                         |                        |
| ZNA   | X         | X*       | X              |                   |           |                         |                        |
| <b>Non-Printable Overwrap Films – Medium Shrink</b> |           |          |                |                   |           |                         |                        |
| BEO   | X*        | X        | X              |                   |           |                         |                        |
| ZSA   |           | X        | X              |                   |           |                         |                        |
| <b>Non-Printable Overwrap Films – High-Shrink</b>   |           |          |                |                   |           |                         |                        |
| ZXA   |           | X        | X              |                   |           |                         |                        |
| ZPA   |           | X        | X              |                   |           |                         |                        |
| <b>Printable Overwrap Films</b>                     |           |          |                |                   |           |                         |                        |
| ZSD   | X*        | X        | X              |                   | X         |                         |                        |
| <b>Collation Bundle Wrap Films</b>                  |           |          |                |                   |           |                         |                        |
| ZNC   |           |          |                | X                 | X*        |                         |                        |
| ZSC   |           |          |                | X                 | X*        |                         |                        |
| MBT666  |           |          |                | X                 | X*        |                         |                        |
| <b>Inner Liner/Seal Pack Films</b>                  |           |          |                |                   |           |                         |                        |
| MB068   |           |          |                |                   |           | X                       |                        |
| ZMD   |           |          |                |                   |           | X                       |                        |
| <b>OTP</b>  |           |          |                |                   |           |                         |                        |
| MBT666  |           |          |                |                   |           |                         | X                      |
| ZNC   |           |          |                |                   |           |                         | X                      |
| MBT   |           |          |                |                   |           |                         | X                      |

\* Optionally usable

Detailed information on all Jindal tobacco film types, including the standard reel dimensions, are available upon request at [tobaccofilms@jindalfilms.com](mailto:tobaccofilms@jindalfilms.com)

## Layer Description

### Surface layer

Heat sealable layer 125°C



Heat sealable layer 125°C, treated



Acrylic layer



### Core layer

Transparent layer



## Anti-Illicit Trade and Counterfeiting Policy

As a committed partner Jindal supports all activities of the tobacco industry to combat the illicit trade in tobacco products. For further information about our policy please check the download area on [www.jindalfilms.com](http://www.jindalfilms.com).

## Storage conditions

Jindal tobacco films are largely unaffected by climatic influences but it should not be stored at temperatures above

30°C and 80% r.h. Moisture condensation should be avoided (especially relevant for coated films).

The rolls should be kept in their original packaging until used.

After unpacking, rolls should be stored upright with suitable protection for the edges. Under these storage conditions, the film can be stored for a period of six months without any risk of deterioration. Jindal tobacco films should be allowed to acclimatize in the processing area for at least 24 hours prior to usage

## Highest quality on a global scale

Our products meet the most stringent requirements for reliability, optimal machine running properties and quality.

Certified according to:

**DIN ISO 9001:2015, A.I.B., BRC Packaging, DIN EN ISO 50001**

## Re-range/sustainability capabilities

Jindal Films' Re range of films is the most sustainable version of our range of bi oriented PP films with fossil free or recycled content, designing the tomorrow's technology to allow producing next generation of low-carbon packaging and labelling films solutions.



Fossil free solutions can be either bio based or bio circular ISCC+ certified fossil free resins by mass balance.

Recycled content can be either from post consumer or post industrial waste as defined in the ISO 14021:2016 and can be achieved by mechanical or chemical (ISCC+ circular certified by mass balance) recycling processes.

The mass balance ISCC+ certified films range (bio based, bio circular or circular) can be immediately implemented without any compromise on their performance and food approvals guarantees. They allow a fast “plug and play” implementation, speeding up the possibility to deliver to end consumers, a fully sustainable solution for their everyday products.

All the films within our Re Range portfolio offer a wonderful tool to reduce carbon emissions across the entire value chain in a joint effort to limit global warming to 1.5°C

# Jindal

## Films

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