

# BOLPHANE® BNAT-O

Sustainable Solution –Ultrathin multipurpose shrink film

Ultrathin display shrink film on the basis of a **green** polyethylene standard multipurpose. **B-Nat-O** is an ultrathin packaging shrink film developed on a basis of **green** polyethylene. It consists of more than **40%** of a polyethylene produced from a bio-source resin.

Besides coming from a renewable natural source, this **green** PE provides the same performances as a fossil polyethylene, can be recycled and contributes to minimizing the carbon footprint



**RENEWABLE  
RESOURCE**



The “Perfect Fit” for all your packaging film needs.

## Advantages

- B-Nat-O is developed to offer the most attractive shelf presentation. Its optical properties are enhanced.
- Its cohesive strength makes it a good candidate for multi-packaging applications.
- The unique technical properties of B-NAT-O ensure excellent results on automatic high speed machines .



LDPE





| Technical Properties                            | Test Unit                              | Test Method                        |        |      |
|-------------------------------------------------|----------------------------------------|------------------------------------|--------|------|
|                                                 |                                        |                                    | BNAT-O |      |
| Presentation                                    |                                        |                                    |        |      |
| Gauge                                           |                                        |                                    | 60     |      |
| Roll Length Singlewound                         | FT                                     |                                    | 8750   |      |
| Roll Length Centerfold                          | FT                                     |                                    | 4375   |      |
| Width Singlewound                               | in                                     | Min: 4in Max: 78in Increment .25in |        |      |
| Width Centerfold                                | in                                     | Min: 5in Max: 40in Increment 1in   |        |      |
| Friction Coefficients ( Film to Film)           |                                        |                                    |        |      |
| Static                                          |                                        | ASTM D1894                         | 0.4    |      |
| Kinetic                                         |                                        |                                    | 0.12   |      |
| Optical Properties                              |                                        |                                    |        |      |
| Haze                                            | %                                      | ASTM D1003-A                       | 3      |      |
| Gloss at 20°                                    |                                        | ASTM D2457                         | 114    |      |
| Shrinkage Properties                            |                                        |                                    | LD*    | TD*  |
| Free Shrink at 200°F                            | %                                      | ATSM D2732                         | 15     | 20   |
| Free Shrink at 260°F                            |                                        |                                    | 22     | 28   |
| Mechanical Properties                           |                                        |                                    | LD*    | TD*  |
| Stiffness modulus                               | Mpa                                    | ASTM D882                          | 500    | 600  |
| Elongation at break                             | %                                      | ASTM D882                          | 90     | 100  |
| Tensile strength                                | Kg/cm <sup>2</sup>                     | ASTM D882                          | 1000   | 1100 |
| Barrier Properties                              |                                        |                                    |        |      |
|                                                 |                                        |                                    |        |      |
| Water vapor transmission rate<br>(73°F, 95% RH) | g/m <sup>2</sup> ,24hrs                | ASTM E96                           | 19     |      |
| O2 transmission rate<br>(73°F, 0% RH)           | cm <sup>3</sup> /m <sup>2</sup> ,24hrs |                                    | 8000   |      |
|                                                 |                                        | ASTM D3985                         |        |      |

## Contact Us

Give us a call for more information about our services and products

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