



# ECO-OLEFIN

## Biodegradable Polyolefin Shrink Film

U.S. Packaging & Wrapping LLC is proud to announce the introduction of ECO-OLEFIN biodegradable polyolefin shrink film with the following properties:

Fully biodegradable in 9 months to 5 years

- Fully biodegradable wherever disposed of, and where other materials are biodegrading (anaerobically and aerobically)
  - ▶ In Landfills
  - ▶ In Compost
  - ▶ Buried in the ground or littered
  - ▶ Agricultural and erosion control settings
- Fully recyclable
- Does not use heat, light, or stress to break down
- Does not require special handling
- Does not contain heavy metals
- Maintain the same desired characteristics as traditional, non-degradable, polyolefin shrink films
  - Available in same sizes, gauges and roll lengths as standard polyolefin shrink films



**U.S. PACKAGING  
& WRAPPING LLC**

1-800-441-5090  
4781 Highway 319 West  
Austin, Arkansas 72007



## Eco-olefin AP-XEC Biodegradable Cross-Linked Polyolefin Shrink Film

**Eco-olefin AP-XEC:** A NEW and innovative biodegradable polyolefin shrink film made with patented additives that allow the film to break down within 5 years, as evidenced by laboratory reports provided by the additive supplier. The film decomposes in the presence of bacteria and microorganisms under natural conditions, producing water, CO<sub>2</sub>, and biomass.

| TYPICAL PROPERTIES              | UNITS         | VALUE                                               | VALUE  | VALUE  | VALUE  | ASTM TEST |
|---------------------------------|---------------|-----------------------------------------------------|--------|--------|--------|-----------|
| GAUGE                           |               | 50                                                  | 60     | 75     | 100    |           |
| DENSITY                         | gm/cc         | 0.92                                                | 0.92   | 0.92   | 0.92   | D-1505    |
| YIELD                           | sq.in./lb     | 60,000                                              | 50,000 | 40,000 | 30,000 |           |
| ROLL WEIGHT                     | lbs./in       | 2.1                                                 | 2.1    | 2.1    | 2.1    |           |
| HAZE                            | %             | 2.2                                                 | 2.3    | 2.5    | 2.7    | D-1003    |
| GLOSS,% @ 45 DEGREES            | %             | 135                                                 | 130    | 130    | 125    | D-2457    |
| COEFFICIENT OF FRICTION         | film/film     | 0.26                                                | 0.26   | 0.23   | 0.2    | D-1894    |
| SHRINK AIR TEMPERATURE          | fahrenheit    | 216F                                                |        |        |        |           |
| FREE SHRINK @250 F              | % area        | 65                                                  | 65     | 65     | 65     | D-1204    |
| SHRINK FORCE                    | g/in          | 95                                                  | 110    | 130    | 160    | D-2838    |
| MODULUS OF ELASTICITY           | kpsi          | 37                                                  | 37     | 38     | 39     | D-882B    |
| TENSILE STRENGTH                | kpsi          | 13                                                  | 13     | 14     | 14     | D-882B    |
| ELONGATION AT BREAK             | %             | 120                                                 | 125    | 130    | 135    | D-882B    |
| WATER VAPOR TRANSMISSION RATE   | ge/100in/24h  | 2.3                                                 | 2.5    | 2      | 1.5    | F-1249    |
| OXYGEN TRANSMISSION RATE        | cc/100on/24h  | 1000                                                | 900    | 800    | 600    | D-3985    |
| CO <sub>2</sub> cc/100in/24 hr. |               | 2500                                                | 2400   | 2200   | 1950   | D1434     |
| SINGLEWOUND ROLL LENGTHS        | feet per roll | 10,500                                              | 8,750  | 7,000  | 5,250  |           |
| CENTERFOLD ROLL LENGTHS         | feet per roll | 5,250                                               | 4,375  | 3,500  | 2,625  |           |
| AVAILABILITY                    |               |                                                     |        |        |        |           |
| SWS & CF                        | inches        | Custom-produced, 2000 lbs. minimum per size & gauge |        |        |        |           |

The above values are based on test data believed to be reliable. This data, however, is merely a guide and should not take the place of thorough testing for each intended use.

SELLER MAKES NO WARRANTY, EXPRESS OR IMPLIED, CONCERNING THE PRODUCT OR THE MERCHANTABILITY OR FITNESS THEREOF FOR ANY PURPOSE except that the product shall conform to contracted specifications, and that the product will not infringe on any valid US patent.

The Buyer assumes the sole responsibility of determining the suitability of the product for the uses and applications contemplated by Buyer and others. Furthermore, the Buyer assumes all risk and liabilities for results obtained by the use of the product, whether used singularly or in combination with other material, except those relating solely to the use of the product not conforming to the contracted specifications, which non-conformity is not discoverable by Buyer or others. Seller makes no warranty or guarantee of results obtained since the condition of the use and application by Buyer and others are beyond Seller's control.



**U.S. PACKAGING  
& WRAPPING LLC**

1-800-441-5090  
4781 Highway 319 West  
Austin, Arkansas 72007