



FLEXIBLE FILMS &amp; COMPOSITES

## OMNIFLEX™ WATERPROOF-BREATHABLE ODOR-CONTROL FILMS WITH NATURAL ELEMENTS™

**Create weatherproof-breathable textile composites that kill odor-causing bacteria in a single film-to-fabric lamination**

Patent pending\* textile-composite technology from Argotec is taking outdoor apparel and footwear to new levels of performance and economy. Our popular **OmniFlex™**-brand waterproof-breathable films can now incorporate *Natural Elements™* antibacterial components for odor-control in performance apparel and footwear products.

Unlike other technologies that require two layers to control odor and provide waterproof breathability, OmniFlex-brand films now allow performance designers and manufacturers to accomplish the same in a single film-to-fabric lamination.

### OMNIFLEX-BRAND FILMS OFFER UNIQUE BENEFITS

Argotec's OmniFlex-brand odor-control film technology is different

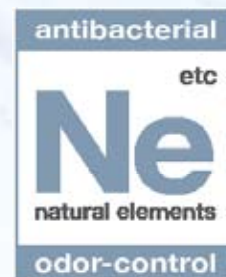


from other products in several unique ways:

Super-thin OmniFlex-brand films have always provided outstanding waterproof breathability for performance apparel and footwear. To achieve odor or scent control in a waterproof-breathable garment, manufacturers typically add a second, separate layer to absorb or mask odor, or to kill odor-causing bacteria. This is accomplished either by a layer of activated carbon or a metallic fabric coating.

In contrast, Argotec builds the antibacterial *Natural Elements* components right into its waterproof-breathable OmniFlex films. The result is a single film layer that provides odor control as well as exceptional waterproof breathability. Argotec is the only film manufacturer with exclusive rights to *Natural Elements* components in this patent pending, single-layer technology.

Another unique benefit of Argotec's odor-control technology is a multi-purpose capability achieved by blending *Natural Elements* components into OmniFlex films. Only Argotec is able to create a waterproof-breathable film with antibacterial properties specifically tailored to the needs of the end use: slow-to-fast acting, short-to-long lasting, or a combination of both in the same film layer.



## THE PERFECT SOLUTION FOR WATERPROOF BREATHABLE ODOR CONTROL APPLICATIONS

- Parkas
- Hunting
- Biking
- Gloves
- Footwear
- Rain gear
- Golf wear
- Mountaineering
- Hiking
- Sailing
- Work wear
- Fishing gear

**Argotec**  
Urethane Film & Sheet

## HOW IT WORKS

The odor-control feature built into OmniFlex™ films is based on new *Natural Elements™* technology from Etcetera LLC, Argotec's joint venture partner. Etcetera LLC has developed odor- and infection-control materials that can be incorporated in films, adhesives, yarns, surface treatments and molded parts.

This unique antibacterial technology utilizes a variety of silver, copper and other metallic agents, blends of each, or proprietary non-metallic additives. *Natural Elements™* additives, when blended into a waterproof-breathable film, actually kill odor-causing bacteria on contact.

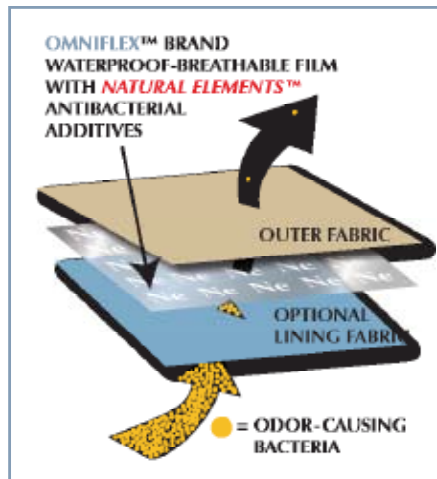
## TESTING RESULTS

Argotec's OmniFlex-brand odor-control films have been tested under AATCC Method 100 and AATCC Method 147 and found to prevent the bacterial growth that can cause odors; they provide ongoing antimicrobial protection. Additionally, certain versions of these films also inhibit fungal growth, making them ideal for footwear applications.

## SUPER-THIN FILMS FOR SOFT HAND, QUIETNESS

OmniFlex-brand single-layer, odor-control films with *Natural Elements™* are available as thin as 0.2 mils (5 microns). These super-thin films reduce weight and bulk in the finished garment.

Extruded from thermoplastic polyurethane and copolyester polymers, these films are very soft, have excellent hand



and are extremely quiet. Whether laminated to the inside of a shell fabric and worn against the skin or covered with a liner fabric, wearers won't even know the film is there. OmniFlex-brand films may be laminated using all commercial lamination techniques for 2, 2½ and 3 layer fabrics.

## HOW TO BUY

Garment and footwear designers can specify Argotec's OmniFlex-brand odor-control films with *Natural Elements* through your fabric laminator, cut-and-sew house or fabric mill/finisher. *Natural Elements* and OmniFlex-brand logos can be used on your products under a simple no-charge licensing agreement.

These films can also be purchased from Argotec in the following configurations:

Thickness: 0.2 to 2.0 mils†  
(5 to 50 microns)

Width: Up to 65 inches (1.52 meters)  
Length: 800 to 1500 yard rolls

† Flat-die films 0.2 to 2.0 mils (5 to 50 microns) are cast on paper, polyethylene or polyester carriers for ease of handling and protection.

‡ TX1300 polyurethane blown films are available in thicknesses from 0.9 to 2.0 mils (22.5 to 50 microns) and widths up to 86 inches (2.18 meters) without carriers.

\* Patent pending, serial number 60885275.

OmniFlex is a trademark Argotec, Inc.

*Natural Elements* is a trademark of Etcetera LLC, a joint venture partner of Argotec, Inc.

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