

# ARGOGUARD

custom  
engineered  
precision  
extruded **ArgoGuard®**  
**urethane**  
**films** for  
durable  
high-gloss  
surface  
protection



**SWM**  
engineered for tomorrow

THE CLEAR CHOICE



# Why do more adhesive coaters & design engineers specify SWM surface protection films?

Adhesive coaters and automotive engineers around the world look to SWM (formerly Argotec) for high-performance, aliphatic polyurethane paint- and metal-protection films with the consistent optical clarity, lay-flat, UV resistance, durability and Class-A gloss finish they require for their products.

Recognized as the leading extruder of uncoated urethane paint protection films for the global automotive aftermarket, SWM utilizes proprietary polyurethane formulations that, for the last decade, have provided outstanding processability for the adhesive coater. **ArgoGuard**® paint- and metal-protection films are also highly printable, expanding the application of these long-lasting films to automotive graphics. They are available in thicknesses from 1.0 to 12 mils (25-300 microns).

In 2011 SWM added a dual layer PPF product designated **ArgoGuard 49510-60DV** with a harder Shore 60D hard coat surface layer on top of a softer, conformable 93A base layer for even greater protection. Standard **ArgoGuard 49510-60DV** is available in thicknesses of 6-12 mils (150-300 microns) and widths up to 62 inches (1.57 meters).

**ArgoGuard** films possess the following characteristics:

- Ultraviolet resistance, non-yellowing.
- Proprietary extrusion techniques that produce the flattest films in the industry.
- Paint-like gloss finish.
- Virtually gel-free optical clarity.
- Consistent processability in the adhesive coater's production operation.

*Unmatched optical clarity, UV resistance, layflat, cleanness, paint-like gloss finish and durability*



## Exclusive lubricant-free polyurethane resin for outstanding processability and printing

- A wide range of hardnesses.
- Tough, durable, abrasion and chip resistant.
- Resistant to bugs and road chemicals.
- Longest splice-free rolls available anywhere.

Add these benefits to SWM's ability to custom engineer just the right film to meet the specific needs of your application and the result is a product line that contributes to a consistency of value unequalled in the urethane film industry.

**CARRIERS FOR ANY APPLICATION**  
**ArgoGuard** paint- and metal-



*Uncoated ArgoGuard paint protection films are cast on paper, polyethylene or polyester carriers that can be removed during processing or left on until final installation*



protection films can be cast on paper, polyethylene, or polyester carriers for ease of handling in the adhesive coating process, or as a component of the product to aid in final installation of the film.

### NOT JUST FOR CARS & TRUCKS

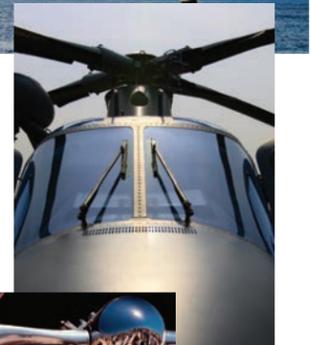
**ArgoGuard** films are also ideal for protecting vulnerable surfaces on motorcycles, boats, recreational vehicles, propeller blades, appliances, gloss surfaces on computers, cell phones, tablets, monitors and other electronic devices, and any other surface needing protection from abrasion, scrapes, scouring or other types of erosive damage.

### INDUSTRY LEADING TECHNICAL SUPPORT

Engineers at the **SWM Innovation Center** stand ready to



*Durable ArgoGuard films are also used to protect the leading edges of aircraft propellers and wind turbine blades from damaging abrasion*



interact with process engineers at the customer's location to ensure that all **ArgoGuard** films perform properly in their production processes. They are also available to test the newest resins, engineer distinct formulations, and to troubleshoot both new and existing applications.



### TYPICAL PHYSICAL PROPERTIES

Property	Test Method	49510	46510	49510-60DV
<b>BASE LAYER</b>				
Hardness	D-224	Shore 93A	Shore 60D	Shore 93A
Tensile strength	D-412	5000 psi	7000 psi	5000 psi (34.47 MPa)
Elongation @ break	D-412	550%	450%	550%
UV resistance	A10 <sup>1</sup>	No change at 3000 hours		
Gauge		6 - 12 mils (150 - 300 microns)	1.0 - 12 mils (25 - 300 microns)	Total both layers: 5 - 12 mils (125 - 300 microns)
Width		Up to 62 inches (1.57 meters)		
<b>SURFACE LAYER</b>				
Hardness	D-224	-	-	Shore 60D
Tensile strength	D-412	-	-	7000 psi (48.26 MPa)
Elongation @ break	D-412	-	-	450%
UV resistance	A10 <sup>1</sup>	No change at 3000 hours		

<sup>1</sup> QUV using UVA bulb, 4 hours 50°C UV exposure, 4 hours 60° C condensation.

**SWM**  
 engineered for tomorrow

*The Clear Choice*



## The Clear Choice

SWM is the clear choice for custom-engineered, high-performance, polyurethane film and sheet for a wide variety of critical “can’t fail” applications. The company has extensive experience in flat-die, cast-on-carrier, and blown-film-extrusion technologies, as well as extrusion coating and multi-layer constructions.

SWM offers precision film & sheet products made from the full range of extrudable polyurethane resins, as well as copolyesters and other difficult-to-extrude specialty thermoplastic elastomers.

A technical force in the specialty films industry, SWM continues to set the standard for innovation, capability, and commitment to excellence in film extrusion and customer satisfaction.

This is evidenced by the **SWM Innovation Center**, the industry’s first-of-its-kind research & development facility devoted solely to advancing the state of polyurethane film and sheet. With a hard-walled white room environment, flat-die and blown-film lab lines, as well as production-level extrusion lines and a fully dedicated research staff, this resource allows SWM to continue to provide its customers with unequalled technical service for decades to come.

At every step of the design and production process, SWM adds value.

SWM is the Clear Choice!



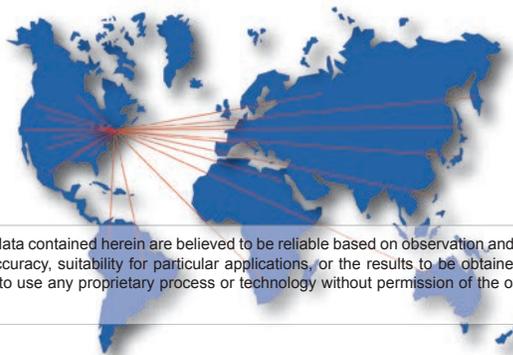
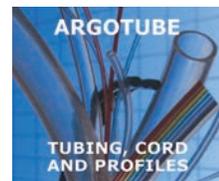
**Class-7 soft-walled clean rooms inside 8000 square-foot hard-walled white room**



**Flat-die and blown-film lab lines enhance the SWM Innovation Center’s capabilities**



**Digital in-line gauge control and photographic inspection systems help ensure the best possible film quality**



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