

ARGOBOND

custom
engineered
precision
extruded **ArgoBond®**
tpu & eva
interlayer
films and
edge seal
for glass
lamination



SWM
engineered for tomorrow

THE CLEAR CHOICE

EXPERIENCE

After entering the glass lamination industry in 1988 with its custom-engineered, precision-extruded aliphatic polyurethane optical interlayer film and sheet, Argotec worked hard to produce the cleanest, highest quality products made from the vast majority of available aliphatic TPU and EVA resins.

RESOURCES

Now, as part of SWM International, the objective remains the same, but with far greater resources to drive growth and develop new glass lamination products. Today, SWM has the cleanest, most modern interlayer film extrusion operation in North America and extrudes over 50% of the world's total usage of TPU interlayers.

QUALITY CONTROL

SWM utilizes digital camera inspection on all its interlayer film production lines. These computerized systems can detect and document pin holes, voids, gels, wrinkles, streaks and dark or light contaminants as small as 0.3 mm.

In addition, all of the company's interlayer extruders are housed in an 8,000-sq-ft atmospherically controlled hard-walled white room with each extrusion line in its own ISO Class-7 soft-walled clean room. The result? The cleanest, most optically clear films in the industry.

PRODUCT SUPERIORITY

Glass engineers know that the highest quality standards are found in the aerospace industry. Which is why the vast majority of all TPU-bonded aircraft canopies and windows are laminated using SWM optical interlayer films.

No **ArgoBond**® glass lamination products require refrigerated storage or contain plasticizers that can migrate and degrade a composite structure. Additionally, their unmatched optical clarity, layflat, excellent hot-and-cold characteristics and overall quality make SWM the leading supplier of TPU and EVA glass lamination products worldwide.

Why is ArgoBond® the leading brand of tpu and eva optical interlayers and edge seal for laminated glass composites?

TPU OPTICAL INTERLAYER

FOR CREATING SECURITY-GLASS COMPOSITES BY BONDING DISSIMILAR MATERIALS LIKE GLASS & ACRYLIC OR POLYCARBONATE

For security-glazing and hurricane-resistance in transportation & construction applications

ArgoBond ST-6050 TPU optical interlayer films bond dissimilar materials like glass, acrylic or polycarbonate to create super-strong, optically clear, impact- and ballistic-resistant composites for transportation, aerospace, government/military and building security applications.

These films have the thermal expansion/contraction



properties needed to bond dissimilar materials to glass and are engineered to work correctly in the laminator's equipment, whether auto-claves, nip rolls or bladder presses.

Available in roll widths to match the lamination process, SWM is the only manufacturer currently extruding 75- and 100-mil product without doubling up via multilayer constructions to provide these thicker films.



EVA OPTICAL INTERLAYER

FOR DECORATIVE GLASS-TO-GLASS CONSTRUCTIONS AND SMART GLASS INSTALLATIONS.

Low-temperature processing for bonding decorative and switchable glass laminates

ArgoBond SE-381 thermoset EVA optical interlayer films work well in low temperature lamination applications with low melt viscosity. Like TPU, they have very good optical clarity, no distortion and low haze.

SE-381 EVA interlayers are ideal for encapsulating **decorative graphics** between layers of glass to give a room or office a unique look. The low melt viscosity allows for bubble-free or void-free lamination of complex decorative media.

Because of their low melting point, SE-381 interlayers also accommodate the low processing temperature limitations when constructing **switchable film** laminates for **smart-glass** applications.



ArgoBond EVA interlayers are ideal for use in smart-glass applications like conferences rooms (switched on, above; switched-off, below).



ENHANCED EDGE SEAL

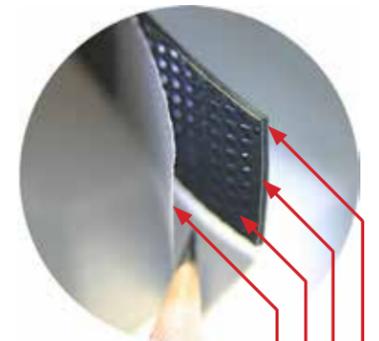
KEEPS WATER & SOLVENTS OUT OF LAMINATED GLASS COMPOSITES TO PROTECT AGAINST INTERLAYER DEGRADATION AND PREVENT EDGE FOGGING.

A proprietary foil-enhanced layer provides exceptional chemical resistance.

ArgoEdgeSealPLUS® is a significantly improved version of SWM's highly successful BOC-9450 Edge Seal™, first created in 1995, and the model upon which most other commercially available edge seal products are modeled.

Designed in 2009 to protect security and architectural laminated glass composites, regardless of interlayer type (TPU, EVA or PVB), this unique product sandwiches a proprietary foil layer between two sheets of tough, chemical-resistant polyurethane to protect glass laminates in two ways:

1. From penetration by moisture, cleaners and solvents found in sealants and caulks that can degrade interlayers and certain optical substrates, leading to edge fogging.
2. From minor edge chipping during handling and installation.

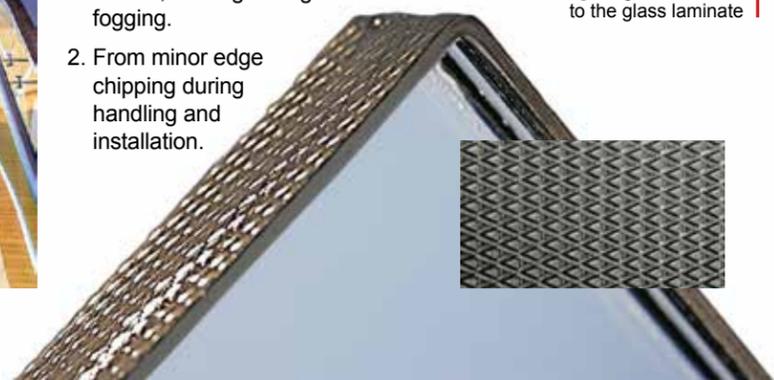


The clear, diamond-pattern-embossed carrier may be removed following lamination to the composite edge

A thinner layer of black TPU cushions the edge of the glass composite and accepts the embossed pattern of the carrier through the autoclaving process for an aesthetically pleasing look

The foil layer provides dramatically enhanced moisture and solvent resistance

A thick adhesive layer of clear TPU bonds ArgoEdgeSealPLUS® to the glass laminate





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



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.

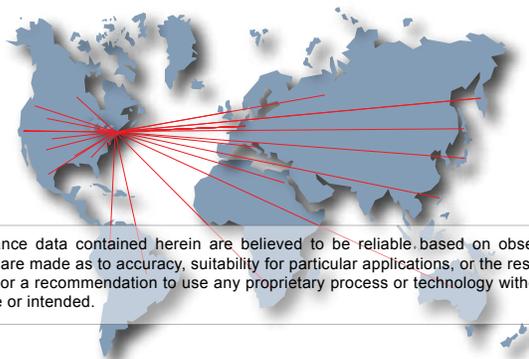
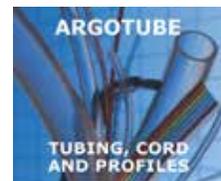
SWM offers precision film & sheet products made from the full range of extrudable polyurethane resins, as well as copolyesters and other difficult-to-extrude specialty thermoplastic elastomers.

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!



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