



**SHADING FILMS  
FOR SUNLIGHT  
MANAGEMENT.  
WHY NOT?**

**Platilon® Dureflex®**



## Thermoplastic polyurethanes are high-tech materials with a unique combination of versatile properties

TPU bridges the gap between hard thermoplastics and rubber. It can be deformed under tensile load, yet still return back to its original shape afterwards. Thanks to its molecular structure, TPU can be stretched when heated, and melted and molded all over again. These soft and elastic films are easily laminated to fabric, manage light, save weight and decrease volume. Our portfolio of TPU films includes a variety of Dureflex® and Platilon® product grades. With our multilayer blown film capability, we can combine the attributes of different types of TPU along with other polymer films.



### AUTOMOTIVE

Adhesive film solutions for convertible roofs, blinds, seat covers and further interior applications



### TEXTILES

Adhesive film solutions for sun and light protection, such as beach flags

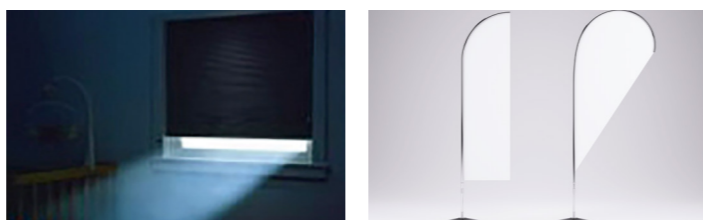


### BUILDINGS

Adhesive film solutions add value for different types of blinds, awnings and curtains

## Shading films for blinds, awnings and curtains

For shading applications, Covestro offers a range of TPU film solutions to meet their special requirements. Darkening effects are achieved by using shading layers according to your needs. Equipped with excellent lamination properties, TPU films can be used to bond different textiles together. As textile laminate, these soft and elastic films can improve surface properties. Covestro offers both flame-retardant and non-flame retardant TPU films suited for different production processes. TPU films can achieve weight and volume reduction and support light and space-saving design trends.



## Roll-up shades for sun roofs

Our Platilon® or Dureflex® TPU films can be used as textile laminates for sun protection in automotive sun roofs. They effectively block out sun and can be easily integrated in small spaces. Highly flexible, roll-up blackout TPU films also make it possible to create large-surface sunshades for panoramic roofs. These textile-laminated films are lightweight and flexible. They manage light, save weight and decrease volume. Covestro offers both flame-retardant and non-flame retardant TPU films suited for different production processes.



## Covestro shading films

### TPU films for blinds, awnings and curtains

Grade	Film Type	Thickness	TMA Softening Temperature	Color	Key Facts	Processability
<b>Platilon®</b>						
<b>BO 9045</b>	TPU ester	90 µm	150 °C	white/black	blackout, no color deviation of textile	thermo lamination
<b>BO 9090X</b>	TPU ester	80 µm	135 °C	white/black/white	blackout, no color deviation of textile	thermo lamination
<b>U 2152 AUX</b>	TPU ester	40 µm	150 °C	white	ambient lighting, dim out effect	adhesive and thermo lamination
<b>U 2182 AKX</b>	TPU ester	40 µm	150 °C	black	dim out effect	adhesive and thermo lamination

Product properties:

Lightweight-laminated textile with increased flexibility. Ability to replace coating. Thin films suitable for pleated blinds and shades.

### TPU films for roll-up shades

Grade	Film Type	Thickness	TMA Softening Temperature	Color	Key Facts	Processability
<b>Dureflex®</b>						
<b>PS 8010</b>	TPU ester	25–75 µm	142 °C	black	dim out to blackout	thermo and adhesive lamination
<b>Platilon®</b>						
<b>U 4180 DK</b>	TPU ester	25–75 µm	155 °C	black	dim out to blackout	thermo and adhesive lamination
<b>BO 9029</b>	TPU ester	50 µm	150 °C	black/grey black/white	black out, top layer	adhesive

Product properties:

Basic TPU films for use in automotive sunshades. Higher equipment levels for FR textiles necessary. Two- or three-layer laminates possible.

### TPU films with flame-retardant properties/additives for roll-up shades

Grade	Film Type	Thickness	TMA Softening Temperature	Color	Key Facts	Processability
<b>Platilon®</b>						
<b>U 4281 AF</b>	TPU ether	45 µm	155 °C	black	matt finish, dim out effect	adhesive lamination
<b>BO 9141-T</b>	TPU ester	50 µm	125 °C	black/grey	soft, flexible, faster lamination	thermo lamination at lower temperature possible
<b>U 2182 AFX 1-T</b>	TPU ester	25 µm	150–175 °C	black	thin, dim out effect, flexible	thermo & adhesive lamination

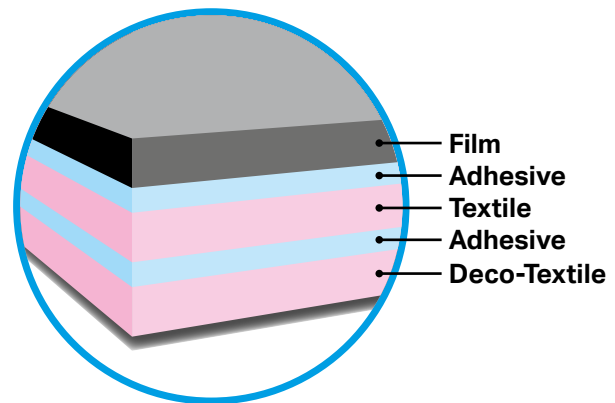
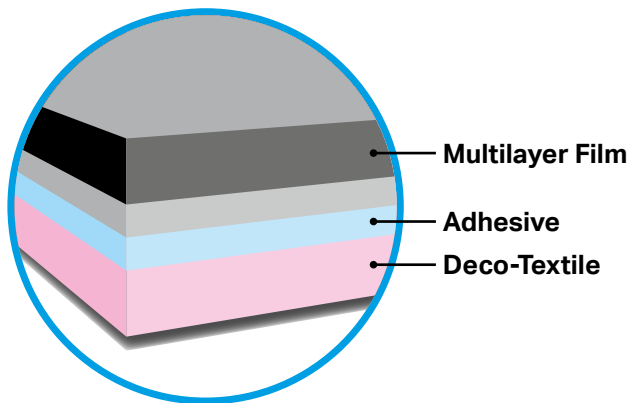
Product properties:

Supporting flame-retardant properties of laminated textiles. Films with FR additives to achieve savings in FR textiles. Three-layer laminates possible.

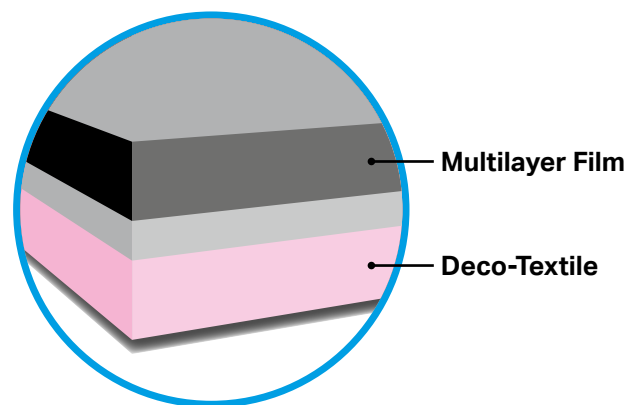
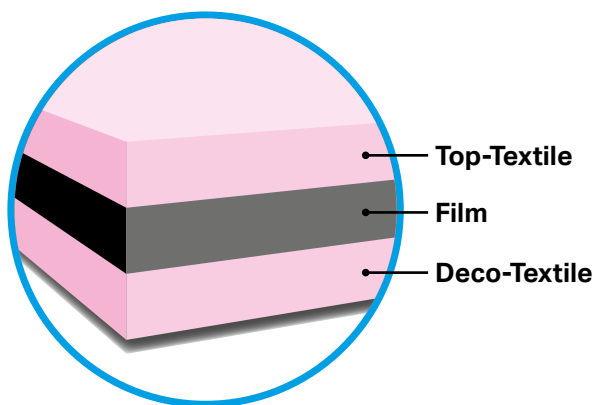
## Customized solutions for your purposes

To develop solutions and enhance your desired specific application, Covestro offers customized solutions for all purposes. Regardless of a blackout product in the automotive sector or in the construction industry, our experts will find the best solution for you. Based on your individual requirements drawn from testing the end product's flame retardancy, we also offer tailor-made products to ensure FR standards. With flexible and innovative solutions which go beyond the demonstrated applications below, we consider ourselves as a provider who generates high-value customized films solutions together with you.

### Adhesive lamination



### Thermo lamination



Covestro Deutschland AG  
Specialty Films EMEA/LATAM  
41538 Dormagen  
Germany

films@covestro.com  
films.covestro.com  
info@covestro.com  
solutions.covestro.com

The manner in which you use our products, technical assistance and information (whether verbal, written or by way of production evaluations), including any suggested formulations and recommendations, is beyond our control. Therefore, it is imperative that you test our products to determine suitability for your processing and intended uses. Your analysis must at least include testing to determine suitability from a technical, health, safety, and environmental and regulatory standpoint. Such testing has not necessarily been done by Covestro, and Covestro has not obtained any approvals or licenses for a particular use or application of the product, unless explicitly stated otherwise.

Any samples provided by Covestro are for testing purposes only and not for commercial use. Unless we otherwise agree in writing, all products are sold strictly pursuant to the terms of our standard conditions of sale which are available upon request.

All information, including technical assistance is given without warranty or guarantee and is subject to change without notice. It is expressly understood and agreed by you that you assume and hereby expressly release and indemnify us and hold us harmless from all liability, in tort, contract or otherwise, incurred in connection with the use of our products, technical assistance, and information. Any statement or recommendation not contained herein is unauthorized and shall not bind us. Nothing herein shall be construed as a recommendation to use any product in conflict with any claim of any patent relative to any material or its use. No license is implied or in fact granted under the claims of any patent.

Edition: 2021 · Printed in Germany