PROCESSING RECOMMENDATION
Film covering of laminates, compact laminates & HPL elements

CHARACTER AND PERFORMANCE OF THE FILM

HPL transport protection films
- Self-adhesive protective films are intended for limited period protection of Duropal HPL products. This includes protection from damage such as scratches or abrasion and dirt during suitable transportation of HPL products from the plant to the customer. Possible other protective film requirements (such as milling/cutting, edge coating, postforming, etc.) are to be tested by the customer in a self-test and agreed with Pfleiderer. HPL protective films are to be removed before using the products, however, must always be removed within 6 months after delivery.
- When transporting, loading and unloading or stacking Duropal HPL products with protective film, ensure that the film is not cut or detached using sharp objects.
- Film-covered HPL boards must be stored protected from strong light and heat (heating) and moisture. The named influences could change the required properties of the protective films and may possibly lead to an increase in the adhesive power or to adhesive residues on the HPL surface. Most ideal is storage in a cool dry place without direct sunlight.
- Self-adhesive protective film! Vacuum transport take place at the customer’s own risk. We do not accept any liability for damage due to handling boards with this protective film.
- Removed protective films must be disposed of properly.
- The protective transport film is temperature resistant up to max. 80°C. Therefore, postforming of Duropal HPL with protective film is not recommended.
- Depending on the specific area of use, the spatial light conditions and the respective decor, due to low surface orientation, Duropal HPL Real Metal, Duropal XTreme and Duropal topX Matt can lead to visual impairments. Such impairments do not constitute defects. To avoid possible aesthetic and visual impairments, we strongly recommend that the orientation of the boards given on the protective film of the product always be followed - especially for large area applications.
• Our General Terms and Conditions of Supply and Business, which you are already familiar with, apply.

**HPL postforming films**
• Polyester-based postforming film is temperature resistant up to max. 180°C.
• The suitability of the postforming film, especially in the postforming process, must be tested by the customer using suitable own/self-tests.
• Our General Terms and Conditions of Supply and Business, which you are already familiar with, apply.

**REMOVING PROTECTIVE FILMS**
• Protective films must be pulled off uniformly, not suddenly at a small angle to the HPL surface at room temperature. Avoid over-stretching the film. A small distance between the board and pulling source (hand) reduces film extension (stretching).
• In case of strong adhesion, the foil can be warmed up carefully, for example with a hairdryer or hot-air blower. As a result of the heat, the film and the adhesive layer soften, which means that the adhesive no longer adheres as strongly. The heated film can therefore be removed much easier. This method can also be used if the foil is on sensitive surfaces.
• A recommendation for removing adhesive residues is given on the last page of this product information.

**HOW TO PULL OFF PROTECTIVE FILMS**

First, carefully lift up the film at the edge at one end
REMOVAL OF ADHESIVE RESIDUES

Which means can be used is always dependent on the sensitivity of the surface on which the film is attached. Glass cleaner is very effective. In this case, the film is pulled off first. Then the area is sprayed with glass cleaner and the film is placed on the surface again, and adheres to it again due to the glass cleaner. After around 15 minutes the film can be removed again. Part of the softened adhesive residues adheres to the film, the rest can be very easily wiped off.

Then fix the laminate in this area

Then wind the film around a “sleeve”

The film can now be pulled off over the entire width with little effort
Very stubborn adhesive residues are removed with white spirit. To do this, gently rub white spirit onto the surface. Due to the white spirit, the adhesive residues turn grey after around one or two minutes. The residues can then be wiped off using a cloth soaked in white spirit. If the residues can then still not be removed, a paper towel soaked in white spirit is wrapped around a doctor blade, a ruler or an ice scraper and the residues are then scraped off with it.

This cleaning recommendation is based on HPL cleaning tests performed by Pfleiderer on natural-rubber based film adhesive residues. The cleaning product manufacturer’s instructions must always be noted and followed.

In general, carry out basic cleaning after treatment with special cleaners. Information on the cleaning of Duropal HPL can be found in our cleaning recommendation “Duropal HPL and DecoBoard”.

<table>
<thead>
<tr>
<th>Cleaning product</th>
<th>Evaluation</th>
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<tbody>
<tr>
<td>Sonax Professional Klebstoffrestentferner</td>
<td>☺*</td>
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<tr>
<td>Nigrin Reparitec Speziallosser</td>
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<tr>
<td>Mellerud Aufkleber und Klebereste Entferner</td>
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<tr>
<td>Hotrega Aufkleber und Klebereste Entferner</td>
<td>☺*²</td>
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<tr>
<td>Würth Industrie-Clean</td>
<td>☺*</td>
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<tr>
<td>Koch Chemie Eulex-Speziallosser</td>
<td>☺*²</td>
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<tr>
<td>Oranex Kraftreiniger</td>
<td>☺*</td>
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<tr>
<td>CLEANOFANT Aufkleber + Klebstoff-ENTFERNER</td>
<td>☺*</td>
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</tbody>
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☺ removal of adhesive residues not possible
☺* good cleaning, surface film is to be removed separately
☺*² very good cleaning, dries without residues