LX Interior Film Guide

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Suitable surfaces

LX Interior Films can be applied to many types of surfaces including paints, varnishes and laminates.

The product features a high tack air-free adhesive designed to bond well to most common surfaces and with air channels to help avoid air entrapment and unsightly bubbles.

Surfaces that need special attention include porous surfaces such as plaster that may appear smooth and offer good adhesion, but adhesion levels will drop over time. For surfaces such as these the use of LX's PM04 water based primer is essential.

As a guide, a high tack pressure sensitive film will have final adhesion values of between 20 and 25 N/25mm on a good surface such as stainless steel or glass.

The table below shows the difference a primer can make to the successful adhesion of the film.

	20 min. adhesion N/25mm	24 hour adhesion N/25mm	7 day adhesion N/25mm
Untreated MDF	2	3	4
Primer coated MDF (using LX PM04 water based primer)	15	17	19
Untreated Polypropylene	11	11	11
Primer coated Polypropylene (using LX PM04 water based primer)	22	22	28

Surfaces that need particular care and attention include unsealed concrete, PVC films and metals that can corrode such as copper.

Smooth application surfaces such as glass or smooth metal will offer the best adhesion values and aesthetic look.

Slightly textured surfaces also offer good adhesion but the texture of the application surface may be visible in some of the Interior Film finishes.

Rough surfaces such as heavily textured wallpapers, brick and concrete blockwork will not offer 100% adhesion coverage and the surface texture will be visible in the face film.

Paints now have reduced amounts of VOCs and 'easy-clean' additives that can impact the ability of the adhesive to adhere properly the paint surface.

Thorough cleaning with an alcohol based cleaner such as IPA will help improve the bond.

The use of a primer will also help to overcome any adhesion issues.

The use of narrow test strips on the application surface will help you to decide what further action needs to be taken to improve adhesion, such as the use of a primer.

Adhesion

Initial adhesion is the bond needed to hold the film in place when being installed and requires a substantial portion of the adhesive to be in contact with the application surface.

Final adhesion is typically reached 24 to 72 hours after application.

The best way to improve adhesion is good preparation of the surface and the use of a primer (PM04) but they will reduce the repositionability of the film and make removal at the end of life more difficult.

A primer such as PM04 is necessary on corners, overlaps, edges and whenever the film is stretched.

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Surface preparation

Damaged areas such as holes and chips have to be repaired prior to application of the Interior Film.

Clean the application surface thoroughly with an IPA based cleaner using a lint free cloth.

It is critical that the paint or primer is fully cured, PM04 primer needs a minimum of 2 hours to cure.

For porous surfaces, a primer coat needs to be applied and fully cured.

Some very porous surfaces such as certain MDF grades may require more than 1 coat dependent on the absorbency of the surface.

Surfaces such as MDF, wood, Melamine and low surface energy plastics can be roughened up with sand paper to aid adhesion.

Application

The recommended application temperature is between 10°C and 30°C.

Cut the film to size with a minimum of 25mm extra on all sides for trimming.

Wrap the plastic squeegee in a lint-free cloth so that it does not scratch the surface of the film.

Align the Interior film with the application surface and pull off a maximum of 300mm of liner.

Then starting in the centre, squeegee the film down using overlapping strokes.

Remove another 300mm of liner and repeat until the application surface is fully covered.

Take care to apply the film only once as repeated repositioning of the film can cause delamination.

Stretching of the film can cause colour and pattern variation.

Squeegee the entire area again to ensure 100% adhesion.

The use of a hot air gun will help ensure 100% adhesive contact and improve the bond.

If during installation air should be trapped behind the film causing a bubble, gently strip back the film and reapply with the plastic applicator. Very small air bubbles can be released by pricking the bubble with a pin. Press out the entrapped air by moving your thumb toward the puncture hole.

Videos of various application methods for internal, external corners, three dimensional curved surfaces, doors etc. are available on our web site www.space-interiors.co.uk - These include tips on butt joints, overlapping joints etc.

Primer

The use of a primer is highly recommended for Gypsum plasterboard, calcium silicate board, concrete, painted walls, stone, wood, Melamine, Polyester coated laminates, Plastisol coated metals, MDF and low surface energy plastics such as Polypropylene and Polyethylene.

A primer will also reduce future problems in the more highly stressed areas of the film where the film has been heated and stretched during application.

Areas that need this treatment include edges and tops of doors, three dimensional curved surfaces, internal and external corners, and overlapping joints.

LX's PM04 water based primer was specifically developed for use with PVC films, particularly overlapping joints.

In addition it works well with wood, gypsum etc.

Multiple coatings are recommended for very porous surfaces.

PM04 needs at least 2 hours to dry completely.

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