

# Installation Guide for Intelligent Protect®



## 1. Area of use:

Intelligent Protect® dries to form a protective, peelable film with flame retardant properties for protection of damages such as grinder debris, small hot works, solvents, grits, scratches, paints, mortar, plaster, wind/weather, and pollution. It is best used on the following building parts:

- Nonporous surfaces
- Coated surfaces
- Glass Surfaces

## 2. System

Intelligent Protect® is a water based, ready-to-use liquid based on modified natural resins. This liquid is applied with an airless paint spray device and quickly dries to a peelable, flexible protection film for applications where flame retardant properties are demanded. This film protects non-porous surfaces against damages that can occur during (construction) works. When construction works are finished and protection is no longer required, the protection film is easily removed and does not leave any residue. Suitable for inside use and high rise structures.



Intelligent Protect install.



Bifold doors.

## 3. Materials and tools commonly used:

- Masking tape.
- Airless pump + accessories + extension cord.
- Empty buckets, water for cleaning of tools.
- Handheld paddle mixer.
- Products: Intelligent Protect® – spray.
- Surface temperature meter, substrate must not be below 5°C.
- Personal safety equipment: Safety glasses, gloves, helmet, overalls, and masks.



Masking Tape



Intelligent Protect



Graco ST Max II 495 airless spray machine

## 4. Individual protection:

Consult the Materials Safety Data Sheet prior to application. Always work in well-ventilated areas. Avoid direct skin contact when product is in wet conditions. You are advised to wear eye protection, overalls, mouth mask, gloves, and safety wear during application.



Gloves.

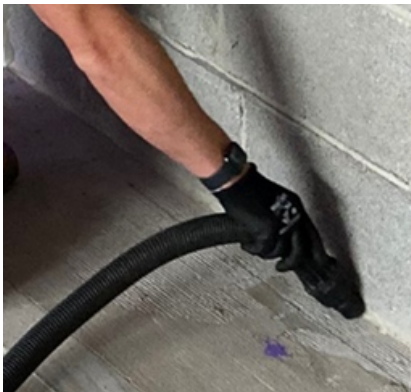


Goggles.

## 5. Inspection and preparation

**The successful sealing of Intelligent Protect® depends on the thorough preparation of the substrate. The following preparation instructions need to be followed.**

- Standing water, dust and free particles are removed with the vacuum cleaner.
- The ambient and substrate surface temperature must be above 5°C.
- Tape ventilation areas etc.



Vacuum all debris.



Full temporary protection.

## 6. Setting up the airless spray machine

**Open the tub of Intelligent Protect® and mix till a smooth consistency with a handheld paddle mixer at low speed.**

- Place airless spray device above pail with product.
- Prime machine.
- Pump wastewater into waste bucket until product is circulating.
- Build up pressure to 120 – 150 bar.
- Repeat for spray hose/gun until product is circulating.
- A commonly used tip is the 517-spray tip.
- After use, clean airless spray device with water, in the way same as set up.
- Clean filters.

## 7. Application

- Open the pail of Intelligent Protect® and mix for a smooth consistency with a handheld paddle mixer at low speed, do not add water or solvents.
- Intelligent Protect® is then applied on the window or door surfaces as a protective weatherproof & peelable membrane in one motion up and down the surfaces to make it 2 passes in total.
- Apply a sufficient thickness of Intelligent Protect® as to guarantee easy peelability and complete protection, 0,6 - 0,7 kg/m<sup>2</sup> or about 600 to 700 micron is sufficient for most applications.
- Apply using an airless spray machine.
- Depending on temperature, humidity, ventilation and sprayed thickness, the film will be tack free within 0.5 to 8 hours after application total drying time is between 4 and 48 hours during which the film may not come in contact with rain or any other form of water, nor with temperatures below 5°C.
- In case of using an airless spray machine for the application of Intelligent Protect® AC/FR spray at 30-60cm from the surface at a 90° angle on the surface, as to minimize overspray.
- Avoid (local) layer thickness of 1000 micron for example in joints/openings in the surface which have not been prepared properly.
- Thickness is verified with a wet film thickness gauge, to ensure minimum total coverage of 600-900 microns depending on surface.
- Clean gauge with water.
- During the drying process, Intelligent Protect® will become translucent once dried.
- After application remove Intelligent Protect® within 12 months for being set on a concrete surface and within 18 months after application on window surface.
- In case of inside application, allow sufficient ventilation
- Clean tools immediately after use with water.
- Remove Intelligent Protect® protection film at the end of construction works.



**Intelligent Protect demonstration.**



**Tower block install.**



**Entrance door.**



**Intelligent Protect install.**



**Intelligent Protect install.**



**French doors.**

## 8. Quality control:

- Check visually to ensure complete coverage. If needed, apply an additional coat.
- Thickness is verified with a wet film thickness gauge for each layer, to ensure minimum total coverage, 600-700 microns.

If required: use wet film thickness gauge to:

- Identify level and smooth patches of substrate.
- Select the appropriate side of the thickness gauge for thicknesses around 600-700 microns.



- Press the appropriate side of the gauge into the wet film immediately after application.
- Remove gauge and inspect the underside of the comb fingers. The last wetted finger indicates the wet film thickness value printed by this finger.
- Repeat the measurements to make a reasonable number of spot checks. As a rule of thumb one measurement should be taken for each 5m<sup>2</sup> of coating.
- Clean gauge with water

## 9. Don'ts:

- Do not use on polycarbonate glass, nor on wooden surfaces.
- Do not apply Intelligent Protect in full sunlight or on concrete with a temperature at over 30 degrees Celsius unless you have cooled the surface (concrete) down with a hose immediately before application.
- Do not dilute Intelligent Protect with water or solvents; avoid contact with any type of liquid during drying.
- Do not leave the lid off the container for long periods, please re-seal immediately after use.
- Do not use a heat source at close range to aid drying.

## 10. Storage:

Store all containers in a dry frost free environment between 5°C and 35°C, avoid direct sunlight or contact with a heat source.

Seal part used containers by pushing down firmly in the center of the lid when closing to expel air, ensure lid is closed tightly.

Do not use product from damaged or broken containers.

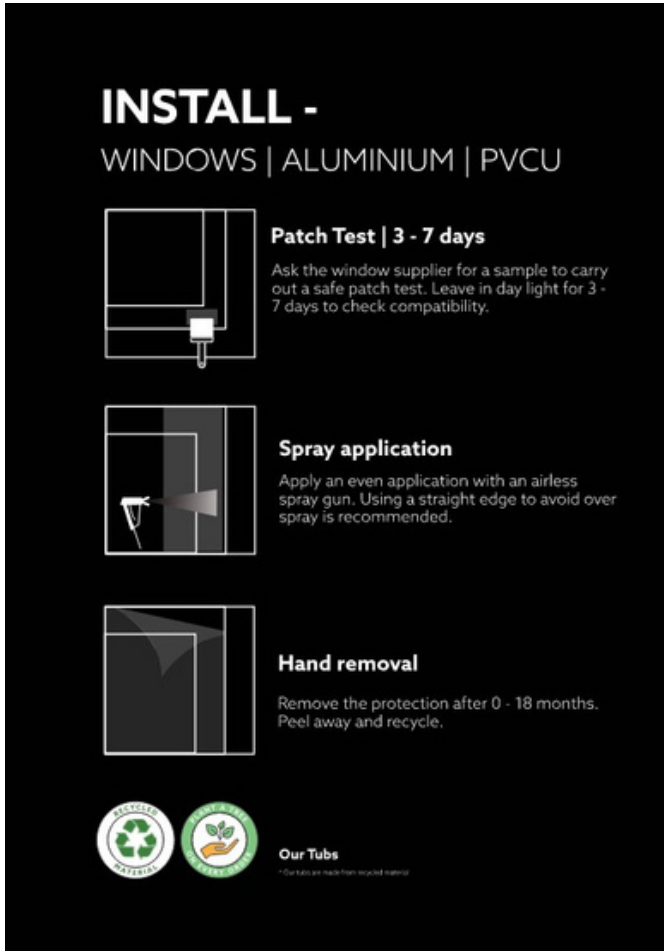
Shelf life: product will keep for 12 months from date of manufacture if kept according to these instructions in unopened containers. See batch number for date of production: ddmmyyxx (dd:day/mm:month/y:year/xx:productcode).

## 11. Disposal:

Please refer to product SDS information. Please recycle all used tubs.



## 12. Other areas of use:





**INSTALL -**  
WINDOWS | ALUMINIUM | PVCU

**Patch Test | 3 - 7 days**  
Ask the window supplier for a sample to carry out a safe patch test. Leave in day light for 3 - 7 days to check compatibility.

**Spray application**  
Apply an even application with an airless spray gun. Using a straight edge to avoid over spray is recommended.

**Hand removal**  
Remove the protection after 0 - 18 months. Peel away and recycle.

  **Our Tubs**  
\*Our tubs are made from recycled material



Before and after photos of an Intelligent Protect demonstration.

### Precautions:

Consult the Materials Safety Data Sheet prior to application. Always work in well-ventilated areas. Avoid direct skin contact when product is in wet condition. You are advised to wear eye protection, face mask, gloves, and safety wear during application.

### Further advice:

This advice is based on the experience of the Intelligent Membranes® for further information, please contact our head office. Product sheets, safety data sheets and independent test reports are available on request.

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