AN ASSA ABLOY GROUP COMPANY

Powder Coating: Cleaning, Maintenance & Repair Guide

Sunray is an AkzoNobel Approved Applicator of Interpon Powder Coatings. Interpon Powder Coatings are organic coatings which need to be cleaned and maintained regularly to ensure that the decorative and protective properties of the coating are retained.

Cleaning coated surfaces

Method

- Usual maintenance of Interpon products can be done with an appropriate cleaning product, followed by clear water rinsing and wiping using a soft cloth.
- All surfaces should be cleaned using a soft cloth or sponge, using nothing harsher than natural bristle brushes. (Cleaning of window sections etc. can be carried out at the same time as glazing cleaning.)
- If the coating is very heavily soiled i.e. due to lack of maintenance, then the recommendation is to consult a specialist company.

Cleaning products

- Before cleaning, the cleaning agent's datasheet must be consulted.
- Usual maintenance can be done using water with mild detergent (pH 5 to 8).
- If the atmospheric pollution has resulted in heavy soiling of the coating, some stains or marks may require stronger domestic products such as products based on alcohol, petroleum spirits, white spirit, or bleach (diluted to 5%). In this case, it is necessary to rinse the coating immediately after the cleaning product has been used.
- In no circumstance should any abrasive cleaner or polish, or any cleaner containing ketones or esters be used.

Frequency

- The frequency of cleaning depends in part on the standard of appearance that is required and also the requirements to remove deposits, which could, during prolonged contact with either the powder film or the metal substrate, (if exposed) cause damage.
- Where building works are in process, or carried out at a later date in the local environment of the installation, cleaning should be carried out at weekly intervals until the works are completed. This is due to the high level of iron ore deposits contained in many materials commonly used in the construction industry.
- Under these conditions any dust left for a period of time will exhibit the appearance that rusting is present, when in fact it is iron ore particles within the dust on the finish surface rusting. If the condition is left untreated, staining of the powder finish will occur. In certain situations the condition can break down the protective finish allowing the surface to become porous resulting in base metal corrosion.

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An example of a recommended cleaning frequency for external environments is as follows:

Environment	Frequency of Cleaning
Normal Urban industrial. Moderate SO2 (Sulphur Dioxide) levels in coastal area with low salinity.	12 months
Severe Industrial areas and coastal areas with moderate salinity and S02 levels > 30 mg/m3	6 months
Hazardous Industrial areas with humid and aggressive atmospheres, with SO2 > 30 mg/m3 Coastal and offshore areas less than 1 km from coast with high UV, high humidity and salt >12 mg per litre of rain water.	3 months

Repair Procedure

Damage to the Interpon D1036 range of powder coatings may be caused during transportation, installation or as a result of the action of other trades (e.g. scaffold damage) on site.

For on-site rectification of small damaged areas Cromadex 800 Two Pack Polyurethane Topcoat, matched for colour and gloss to the appropriate Interpon D1036 Range shade, should be used.

Range shades and glosses and data sheets are available from Cromadex.

Where damage has exposed the metal, the prepared metal only should be primed with Cromadex 903 Two Pack Chromate-Free Etch Primer.

Please see the Cromadex 800 Two Pack Polyurethane Topcoat data sheet for thinning ratios and drying times.

Method 1: Minimum requirements to repair small isolated areas (approx. 5-6cm^2) and scratch damage.

1. Clean all surfaces to be painted with Cromadex 678 Spirit Wipe, or equivalent, by applying liberally using a clean lint-free cloth and wipe dry using lint-free cloths physically removing all sealants and mastics, etc.
2. Abrade all areas to be coated with abrasive paper, up to 320 /400 grade, if necessary, to ensure a suitable keyed surface (ready to be coated) then wipe clean using lint free tac-rags.
3. Apply by brush to exposed metal surfaces only, one thin coat of Cromadex 903 Two Pack Chromate-Free Etch Primer and allow to dry for one hour.
4. Apply by brush or spray one coat of Cromadex 800 Two Pack Polyurethane Topcoat, matched to shade and gloss, as detailed in the Cromadex 800 2 pack polyurethane topcoat data sheet.

Method 2: Minimum requirements to repair larger areas of damage

1. Mask all surrounding surfaces of the damaged areas to the edge of the panel or a suitable break line.
2. Clean all surfaces to be coated with Cromadex 678 Spirit Wipe or equivalent, by applying liberally using a lint free cloth, and wipe dry using lint free cloths, physically removing all sealants and mastics etc.
3. Abrade all areas to be coated with abrasive paper, up to 320/400 grade, if necessary, to ensure a suitable keyed surface, ready to be coated, then wipe clean using lint free tac-rags.

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4. Apply by brush or spray to the exposed metal surface only, one thin coat of Cromadex 903 Two Pack Chromate-Free Etch Primer and allow to dry for one hour.
5. Apply by spray a minimum of 40 microns Cromadex 800 Two Pack Polyurethane Topcoat matched to shade and gloss, as detailed in the Cromadex 800 Two Pack Topcoat Data Sheet.

Method 3: Minimum requirements for complete re-sprays on site.

Substrate Preparation

1. Clean all surfaces using Cromadex 678 Spirit Wipe or equivalent and physically remove all sealant and mastics products. Degrease all areas to be abraded using lint-free cloth. Inspect and remove all mastic sealant adjoining any surface to below 4mm of metal edges.
2. Apply protective masking to unaffected areas as required.
3. Mechanically abrade to sound substrate. Drilled holes to be countersunk and butt joints to be filled, the surface should taper on the side for filling.
4. Abrade mechanically or by hand using 60/80 abrasive paper areas to receive filling media.
5. Clean down with vacuum or air, thoroughly degrease with Cromadex 678 Spirit Wipe or equivalent at the areas to be filled, physically removing any sealant mastics etc., where necessary.
6. Mix the components of the filling media as specified in the manufacturers recommendations and apply directly to the substrate.
7. Work the material to remove any trapped air and finish to profile shape. Allow to fully cure as per manufacturers recommendations.
8. Abrade with 80 abrasive paper to correct profile by hand or mechanical action. Repeat items (f) and (g) if required. Clean down after each operation to remove dust and debris.
9. Abrade all areas coated with abrasive paper up to 320/400 grade, if necessary, to ensure a suitable keyed surface, ready to be coated, then wipe clean using lint free lac-rags.
10. De-mask and clean down.

Recoating

1. Mask unaffected areas prior to painting. Degrease using solvent degreaser and lint-free cloth and remove all dust.
2. Apply one spray coat of Cromadex 903 Two Pack Chromate-Free Etch Primer to any areas of exposed metal to a minimum of 5 microns dry film thickness. Allow curing as recommended and lightly key surface.
3. Remove all debris and tac-rag surface.
4. Apply Cromadex 800 Two Pack Polyurethane Topcoat to a minimum dry film thickness of 40 microns allow to flash off and cure as detailed in the Cromadex 800 Two Pack Polyurethane Topcoat Data Sheet.
5. De-mask, clean down and remove debris, etc.
6. Re-apply sealant/mastic on required areas.
7. Present finished painted areas for inspection and approval of client.
8.
9.

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Method 4: PVDF repair method for complete resprays.

The use of PVDF paints should not be used for partial re-painting, as there may be significant weathering differences.

Substrate Preparation

1. Clean surface using Cromadex 678 Spirit Wipe or equivalent and physically remove all sealant and mastics. Degrease all areas to be abraded using lint-free cloth. Inspect and remove all mastic sealant adjoining any surface to below 4mm of metal edges to ensure no sealant film is present.
2. Mask up all glass and surrounding brickwork to avoid scratches, damage or paint residue.
3. Identify all affected areas and remove paint by hand and/or mechanical means ensuring to leave clean bare metal around any corrosion on the substrate.
4. Thoroughly abrade the corroded areas ensuring removal of white rust, filiform corrosion, etc., leaving clean 'virgin' materials.
5. Fill deep scratches and/or dents with metallic filler and feather back to suitable finish.
6. Abrade all areas to be coated with abrasive paper, up to 320/400 grade, if necessary to ensure a suitable keyed surface (ready to be coated) then wipe clean using lint free tac-rags.
7. Thoroughly clean all areas to be painted with solvent to ensure removal of dirt debris and contaminants.
8. Clean all areas using lint-free anti-static tac-rags to ensure no dust is present.

Recoating (PVDF)

1. Apply a minimum of 5 microns Cromadex 903 Two Pack Chromate-Free Etch Primer, Primer to all bare metal surfaces only.
2. Spray apply PVDF ADS by method of various build-up coats to a minimum of 25 microns DFT and allow curing as per the manufacturer's instructions.
3. Remove masking materials, clean down and remove debris.
4. Re-apply sealant mastic on required areas.
5. Present finished painted areas for inspection and approval of the client.

The above information and repair methods/ statements etc. are intended for guidance only. It is the client's responsibility to ensure that the products to be used are fit for purpose. Other rectification material systems and method statements are available.

For further information contact Cromadex via their website: www.interpon.com

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