

#### INTENDED USE

##### DECORATION OF BUILDINGS

A rapid drying high performance single system, anti-corrosive, self priming low sheen topcoat, giving a tough flexible film with remarkable adhesion to many difficult substrates.

VOC Classification 2004/42 Cat A(i) = 500g/L.  
Do not add thinners.

Typical uses are:

- Cladding Paint; dries at low temperatures down to 5 C for use throughout the year. SEE SUPPLEMENTARY INFORMATION SHEET FOR USE AS A CLADDING PAINT.
- Metal Railings and Fencing; adheres directly to galvanised metal or steel with no need for mordant solutions or etch primers.
- Galvanised or steel structures subject to high humidity; such as steel roof trusses in swimming pools

Not suitable for use in areas subject to chemical / solvent attack

##### ARTICLES - that are not part of a building structure (and are therefore outside the scope of the building products VOC Product Directive)

Typical uses are: machinery, process steelwork, fixed plant, exteriors of pipe lines and tanks; for areas exposed to high humidity and certain chemicals (seek advice from Manor Coating Systems Technical Department)

Not suitable for use in areas subject to chemical / solvent attack

##### METAL FINISHING

A rapid dry single system anti corrosive self priming low sheen topcoat, giving a tough flexible film with remarkable adhesion to many difficult substrates with excellent re-coat characteristics.

Typical uses are:

- General Metal Fabrication; used to overcome problems associated with conventional alkyd paints subject to severe exposure conditions often associated with poor adhesion
- Wrought iron gates and railings, applied direct with no need for a mordant or etch primers
- Metalwork subject to low temperatures, Hi Build Vinyl X Semi-Matt remains flexible
- Metalwork subject to high humidity

Not suitable for use in areas subject to chemical / solvent attack

##### NICHE END USES ON SOME PLASTICS

Some rigid and flexible plastics; such as Foamex and PVC. Always perform a test area prior to painting. if required, seek advice from Manor Coating Systems Technical Department.

See also the Manor supplementary information sheet 'Guide to the UK VOC legislation' to understand how the VOC content of a coating determines its suitability for use in any application.

Not suitable for use in areas subject to chemical / solvent attack

## SUITABLE SUBSTRATES AND PREPARATION

Untreated steel and wrought ironwork; for best results blast clean prior to painting to SA 2 1/2, otherwise manually abrade using powered hand tools and abrasives to ST2.

Weathered Galvanised Steel; remove all traces of oil or grease, lightly abrade with P600 wet or dry paper. Remove dust

Heavily Chromated Galvanised Steel; alkali clean and then proceed as for Bright Spangled Galvanised Steel.

Bright Spangled Galvanised Steel and Newly Galvanised Steel (less than six months since galvanising); remove oil and grease, thoroughly abrade with P600 wet or dry abrasive, remove dust.

Cladding; see separate information Sheet and follow instructions prior to painting

Aluminium; use 1 Pack Etch Primer CT, see data sheet for details

Always prepare a test area.

Other substrates including plastics; seek advice from Manor Coating Systems Technical Department

## AVAILABILITY

A low satin finish in 5 litre containers in a range of colours. If a Metallic is required, lustre will be affected by sheen.

A Hi Build Vinyl MIO (Micaceous Iron Oxide) in 5 litre containers in Graphite Grey.

## PRODUCT INFORMATION

|                               |                                                                                                                                                                                                                                                                        |
|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Composition</b>            | Based on a modified vinyl resin pigmented with suitably selected pigments and modified zinc phosphate anticorrosive pigment.                                                                                                                                           |
| <b>Volume Solids</b>          | 43% Approx depending on colour                                                                                                                                                                                                                                         |
| <b>Weight Solids</b>          | 64% Approx depending on colour                                                                                                                                                                                                                                         |
| <b>VOC content</b>            | 500 Max. g/litre                                                                                                                                                                                                                                                       |
| <b>Typical film thickness</b> | Typically 150 microns wet and 65 microns dry<br>Galvanised items; inc rails & fences to prevent zinc salts migrating a minimum dft of 75 microns is required<br>If items are in coastal location a minimum 120 microns d.f.t. is required applied in two coats or more |
| <b>Theoretical coverage</b>   | 6.7 sq metres/litre at 150 microns wet film thickness, 65 Dry film thickness                                                                                                                                                                                           |
| <b>Dry heat resistance</b>    | 60 C (product is thermoplastic and may soften at temperatures over 30C)                                                                                                                                                                                                |
| <b>Flash Point</b>            | Within the range 21-31 C                                                                                                                                                                                                                                               |

## APPLICATION DETAILS

PREFERABLY BRING PAINT TO 15-25C AND STIR WELL BEFORE USE

|                           |                                                                                                                                                                                                                     |
|---------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Note</b>               | To comply with VOC Products Directive for the DECORATION OF BUILDINGS no thinner may be added                                                                                                                       |
| <b>Airless spray:</b>     | <b>cold</b> Do not thin (see application note). Typical tip size 17-19 thou. (0.43-0.48mm) Typical fluid pressure 2800 p.s.i or 200 kg/sq metre.                                                                    |
|                           | <b>heated</b> Not recommended                                                                                                                                                                                       |
| <b>Conventional spray</b> | Thin up to 15% with thinner, apply 2 to 3 coats to achieve the required film thickness (See application note)<br>Do not hot spray                                                                                   |
| <b>Brush Roller</b>       | Only attempt to brush and roller small areas such as making a localised repair or painting narrow areas such as gates or railings where wet edge retention is not an issue. Do not attempt to brush out or lay off. |

**Thinner**

Normally Manor Industrial Thinner. Manor Synthetic thinner may be used for brush & roller. Manor Fast Flash Thinner for spray application in a booth for quicker flash off. (see application note for details)

**Film thickness per coat**

|                | <u>Dry</u> | <u>Wet</u>  |
|----------------|------------|-------------|
| <b>Minimum</b> | 26 microns | 60 microns  |
| <b>Maximum</b> | 75 microns | 174 microns |

**DRYING AND RECOATING**

Approximate drying times at 75 microns d.f.t.

| <u>Substrate temperature</u> | <u>Touch Dry</u> | <u>Overcoating times</u> |                |
|------------------------------|------------------|--------------------------|----------------|
|                              |                  | <b>Minimum</b>           | <b>Maximum</b> |
| 10C                          | 1 hour           | 3 hours                  | Indefinite     |
| 20C                          | 30 minutes       | 1 hour                   | Indefinite     |

**Environmental conditions**

The air temperature should be at least 5 C with a surface temperature 3 C above dew point and the relative humidity below 90% thus ensuring that the surface is dry and that condensation will not occur during application or drying.

The drying times will be significantly extended in cold, damp conditions

Do not apply to external surfaces if the forecast is for rain to fall within the next 24 hours as surface may water mark during curing.

In exposed windy conditions a minimum air temperature of 8 C is recommended.

During painting where the substrate is above 35C and/or where solar radiation is high, solvent evaporation will be accelerated and could cause film defects.

**Overcoating / repainting**

An additional coat of Hi Build Vinyl X Semi-Matt may be applied if required.

If spraying Wet on Wet application can be undertaken

**SHELF LIFE**

Store in cool, dry conditions, typically 5-25C. After a period of storage the product should be thoroughly stirred. Usable life is 2 years from date of manufacture in unopened containers.

## **SAFETY PRECAUTIONS**

Refer to Manor Safety Data Sheet

## **LIMITATIONS**

The information given in this data sheet is based on experience and is accurate to the best of our knowledge. No guarantee should be implied however, since the conditions of use are beyond our control. This data sheet does not constitute a specification.

A Painting Guide can be accessed via our website which provides additional information on paint and painting and definitions of terminology.

In case of doubt as to the suitability of the product please consult our Technical Department. If you are advised that the paint can be used in a manner not specified on this datasheet our Technical Department will confirm this to you in writing. Do not use paint prior to receiving this confirmation.

References to other primers, topcoats, cleaners and thinners are to the Manor Product of that name only.

This data sheet supersedes all previous issues.

## **REFERENCES**

Amended: 23/06/2026

Reference: HX Version: 5.00

# Hi Build Vinyl

## Supplementary Information when used as a cladding paint

### LIMITATIONS AND ISSUES

There are many different types of plastic-coated steel cladding. These can vary significantly in the way they accept overpainting. While Hi-Build Vinyl X Semi-Matt has been found to perform excellently on a wide selection of cladding, no single paint system is suitable for every type of cladding. Therefore, an application / adhesion trial on a small test area is essential to verify the suitability of painting each project. This process takes time and must be planned well in advance of the intended maintenance.

### TESTING THE SUBSTRATE

*IT IS INCUMBENT ON THE SPECIFIER / END USER TO ASSESS THE SUITABILITY OF HI BUILD VINYL X SEMI-MATT FOR THE SUBSTRATE IN QUESTION.*

*(i) Examine the job prior to any works*

Determine whether the existing original coating is failing, if it is loose, embrittled or friable or there is poor adhesion to the metal underneath seek specialist advice. Painting is unlikely to be possible.

Determine whether the existing coating has already been painted and if so establish the type of paint used. If painted with anything other than Manor Hi Build Vinyl it will be necessary to establish compatibility. The solvents in Manor Hi Build Vinyl could adversely affect the paint causing it to soften back and/or the paints might not be compatible.

Determine how many test areas will be required (see below) and secure access to do so.

*(ii) Purchase a tin of Hi-Build Vinyl X Semi-Matt in the desired shade*

Purchase 5L of the Hi-Build Vinyl X Semi-Matt in the colour required for the job, if the accuracy of the colour match is critical this should be checked during testing.

*(iii) Select Test Area(s)*

Separate test areas should be done for each different substrate. Some buildings have been extended or altered and could have been clad with different materials of different ages even though the profile appears similar. Also test areas where heavy contamination may be an issue such as shadowing left by signs, adhesive residue left by stickers or decals and areas around ventilation ducting which could be subject to fume or chemicals. Test around vents and exposed surfaces especially where dirt, oil, grease or chemicals may have attacked the existing coating or where the existing coating has failed.

Separate test areas should be considered on different elevations especially south facing panels or areas subject to heavy shading.

*(iv) Prepare and paint the test area(s)*

Thoroughly clean with hot water/steam power wash and alkaline degreaser to remove all traces of dirt and debris, small areas can be done by thorough hand cleaning. Lightly abrade the surface with a Green 3M Scotchbrite Pad then remove dust. Paint may be applied by brush for adhesion and plasticizer leaching test however it is also recommended to apply a 1m x 1m test area by the same method of application that will be used on the job to confirm application techniques and suitability of finish. Test areas must be applied to a similar film thickness as will be used on the main areas and in line with the information on this data sheet.

*(v) Leave overnight then check for tackiness*

If the film remains tacky or soft or glossy it is likely that the cladding has a high plasticizer content. Repeat the test again but this time after cleaning wipe the area with Methylated Spirits to remove any surface plasticizer, allow to dry and then apply the test paint. If this fails then another paint system will be required, contact Manor Coating Systems Technical Department.

(vi) *Leave for 7 days then*

- *check for tackiness again (as for (v) above)*

- check finish for blisters, blemishes or distress

- check adhesion using a sharp Stanley knife (or similar) make a series of 5 parallel cuts about 3mm apart and 20 mm long. Repeat these cuts at a 90 degree angle to make a Portcullis or grid pattern. Apply clear adhesive tape over the cut marks, press down firmly, leave for 2 minutes and pull off sharply holding the edge of the tape. Examine the back of the tape. If significant amounts of paint are removed, repeat test in another area and consult Manor Coating Systems Technical Department, it is likely that an alternative system or approach will be required.

If these tests are passed then proceed to verify the colour and finish, if not pause and obtain additional information.

(vii) *Verify the accuracy of the colour match and finish*

Verify the accuracy of the colour match and effect to panels being matched to.

This is particularly important with metallics where the method of application can have a dramatic effect on the achieved visual finish. If possible use solid colours rather than metallics. If metallics are used we strongly recommend that these are tested and client approval received prior to painting. Metallic flake does not always lay down fully at the viscosity's product is supplied at.

## **SUITABLE SUBSTRATES AND PREPARATION**

Plastic coated steel that has been tested for product suitability as described above.

### **Surface Cleaning**

Thoroughly clean with hot water/steam power wash and alkaline degreaser to remove all traces of dirt, dust and debris. Small areas can be done by thorough hand cleaning. Lightly abrade the surface with a Green 3M Scotchbrite Pad then remove dust. If during testing it has been necessary to wipe the surface with Methylated Spirits this will also have to be done on the main painting work.

### **Patch Repair**

Treat any areas where the original coating has failed, remove any rust by abrasion and remove any flaking plastic coating back to a firm edge. Spot prime with 2 generous coats of Hi-Build Vinyl X Semi-Matt leave 2 hours between coats and leave to dry overnight. Feather back the edges of the repair with wet and dry paper to prevent a lip showing.

## APPLICATION

### **Airless Spray (cold)**

Ensure that release of spray dust and overspray is prevented by sheeting up or similar.

A typical set up for airless spray application would be a minimum working pressure of 2800 psi with a tip size of

0.38-0.48 mm (17-19 thou) and a spray angle of 65-80o

Do not thin

Do not exceed recommended film thicknesses

### **Conventional spray**

Not recommended

### **Hot Spray**

Do not hot spray.

### **Brush/Roller**

Only attempt to brush and roller small areas such as localised repair where wet edge retention is not an issue.

Do not attempt to brush out or lay off.

### **Thinner**

To comply with VOC products directive for the DECORATION OF BUILDINGS no thinner may be added.

### **Film thicknesses**

Airless Spray one coat 150 microns wet and 65 microns dry. No more than 150 microns dry should be applied even if multi coating.

Use a wet film thickness gauge / comb periodically during applicaiton.

### **Environmental Conditions**

The air temperature should be at least 5C with a surface temperature 3 C above the dew point and the relative humidity below 90% thus ensuring that the surface is dry and that condensation will not occur during application or drying.

The drying times will be significantly extended in cold, damp conditions.

Do not apply to external surfaces if the forecast is for rain to fall within the next 24 hours as the surface may water mark during curing.

In exposed windy conditions a minimum air temperature of 8 C is recommended.

In extremes of temperature especially on days with high solar radiation on south facing slopes the surface temperature of the cladding can rise rapidly. This will cause the solvents to evaporate quickly and potentially cause surface defects especially in high film thicknesses. Ensure surface temperature is between 5C and 35C during application. This can be verified with an Infra Red thermometer. Readings should be taken at different times during the application period. Pale surfaces can show a temperature difference of over 20C to dark surfaces even in the temperate climes of the UK.

**Overcoating /  
repainting**

An additional coat of Hi-Build Vinyl X Semi-Matt may be applied if required.  
Leave at least 2 hours between coats. No more than 150 microns dry should  
be applied even if multi coating.

**STORAGE OF  
PAINT**

Ensure paint is stored between 5C and 35C. Some storage containers and the rear of vans can  
exceed 35C on days of high solar radiation.

**TIPS ON LOCAL  
REMEDICATION  
AND  
PREPARATION**

Depending on the degree of defect:

- Micro blisters - lightly abrade using Scotchbrite type pad
- Blisters - if the Scotchbrite method does not prove successful manually abrade to remove  
the blister peaks.
- Large blisters - may need removal with a scraper

It should not be necessary to remove the entire paint film, rather concentrate on removing the  
peak of the defects. The amount of material to be removed will be determined by the size of the  
defect which can only be evaluated during works. The size of the grit will need to be determined  
on each site but typically in the range of 40 grit (larger blisters) to 180 grit (smaller blisters).

Do not attempt abrasion if the surface temperature is above 30C. We recommend the use of an  
IR gun with regular readings taken during the work.

Do not use power tools for abrasion as they generate too much frictional heat causing the  
substrate to soften back.

(Explanatory note: Manor Hi Build Vinyl is a non convertible coating, it is the nature of the coating  
that it is somewhat thermoplastic which enables it to accommodate the expansion and contraction  
in the substrate. If the coating was not thermoplastic then it would embrittle and fail)

During preparation care must be taken not to remove or damage the original plastic coating.