

BRUNDLE COATINGS

ADVICE SHEET 3

Rourke's VINYLAST™ & Brundle Coatings

Exclusively available from F H Brundle

TROUBLESHOOTING & PREVENTING PROBLEMS

Rourke's VINYLAST™ (This information may also be useful with other paint products)

Rourke's Vinylast™ is a high quality, low maintenance finish specially designed for painting decorative ironwork. It can be applied to hot dip galvanised work to give a beautiful appearance which can also be enhanced by highlighting with **our range of Rourke's Patinas**. Since Vinylast™ was developed in 1990, it has been used on decorative ironwork in the UK, and around the world, with very few problems. However should you experience anything but total satisfaction, here is a guide to what may have occurred, possible solutions and how to avoid potential problems the future.

Generally to avoid problems, just follow the paint instructions. Clean off any sharp or unsightly areas on newly galvanised work. All work must always be clean and dry, and free from dust, oil, or grease before paint is applied and you must always apply paint to the recommended dry film thickness (d.f.t.). We recommend a minimum d.f.t. of 80 microns (µm), and up to 125 microns in adverse locations. Always use the correct thinners and apply the correct amount. Please read our other Advice Sheets for detailed information on preparation.

 **In the unlikely event that you have a problem, please make a note of the batch number found on the can and the date it was purchased and contact one of our staff. This will be required to allow the product to be traced and checked against the sample which is taken from each batch produced. Information such as the type of thinners used, how much the paint was thinned down, how the work was painted, was the work galvanised and any photos of the work are invaluable in solving any problems.**

For best results make sure that all work is completely dry before painting. Keeping a reasonable temperature in the spray area is also important, but **always** avoid having any naked flames in any area where paint is being applied. We also recommend leaving the work a minimum of 2-3 days after painting before installing it, and to avoid any heavy handling before the paint has fully cured which can take some time depending on the temperature and the film thickness. Careful handling during transportation and installation of the work can save you time in touching up scratches.

Storage and Application Temperatures

Ideally paint should be stored between 5°C and 28°C and never below 0°C. Application temperature should be between 12°C and 22°C. Please note that very low or high temperature can cause viscosity variations which can affect results.

Possible problems and solutions

1 Small bubbles or blisters appear on the surface of newly painted work

The most likely cause is moisture on the galvanised work. Trapped moisture tries to evaporate and causes small blisters to appear.

Solution:

- If this occurs you can try letting the paint thoroughly dry and then lightly abrade the surface and apply another light coat, otherwise you may need to strip off the paint and leave it to dry for 48 hours before repainting.

Prevention:

- Always ensure that work is thoroughly dry before painting. Although galvanised ironwork may feel dry to touch, moisture can be trapped in corners where scrolls or bars are welded. Often people are in a rush to get the job done and spray the work as soon as it arrives from the galvanisers but unfortunately it will take even longer if the work is not completely dry. Remember that your work may have been in a bath of water when it came out of the galvanising tank, or it may have rained on the journey back to you from the galvanisers. In an unheated workshop in winter it can easily take up to 48 hours or more to dry properly.

2 Paint is flaking

This is usually an adhesion problem. If the film thickness is checked and the correct film thickness has been applied then several things must be considered:

- This is commonly caused by insufficient paint being applied, especially on the first coat.
- Was the work a very shiny galvanised finish?
- Was the work sufficiently dry before coating?
- Had it been properly prepared and any contaminants cleaned off?
- The coating may not have been given enough time to thoroughly dry and fully harden (see Section 5 below).
- Adding too much thinners can contribute to adhesion problems.
- Has the correct thinners been used?

Solutions:

- In many cases additional paint will cure the problem. We suggest adding at least one more thick coat to a small section and checking the results. Please check the film thickness with a mechanical or electronic gauge and if this is the case additional coats may be required to obtain the recommended dry film thickness of between 80 – 120 µm (microns). Please see Advice Sheet 2 - Coverage Information.
- The alternative is to strip the paint and start again.

Prevention:

- Always prepare well before painting - clean off all dirt, millscale, weld spatter, oil and grease, etc. Any oil or grease can be removed with **Brundle Panel Wipe** (Degreaser) Product Code: 29PW05, prior to painting.
- Very bright shiny metal surfaces must either be lightly abraded or treated with **Brundle Mordant Solution (Product Code: 29MTW05)** to achieve better adhesion.
- Mild steel could be prepared by grit-blasting and painting as quickly as possible
- Do not use too much thinners. Ideally with Vinylast™ the minimum necessary amount of thinners should be used. Always use the recommended thinners for Vinylast™ which is Product Code: 29002 No. 1 Industrial QD Thinners. Other products may require our 29WS05 White Spirit. Always check if you are unsure. See Paint Advice Sheet No. 10.

3 Rust has developed

If the work was not hot dip galvanised, either the metal was already rusty and this was not fully removed, or the paint coating is too thin. If the work is galvanised, one other problem which can occur is if customers call after a few weeks and say that the work is rusting. They will say that there are a lot of spots which have gone rusty. This can happen if an installer has accidentally cut or ground some steel with an angle grinder close to the painted surface. The result is that you get tiny specks of rust on the surface which have been caused by the hot sparks of metal embedding themselves into the surface of the paint. It can appear as if rust is coming through the paint, but this is not the case, and the simple solution is to paint over this area and cover the tiny pieces of metal.

Solution:

- It all depends on the severity of the rust. In severe case the surface may need full preparation with the rust being removed. Work that is severely rusty may require blast-cleaning before painting. If you do blast-clean, then please paint as soon as possible after this process. The recommended minimum film thickness is 200 microns wet and 80 microns dry. However for coastal environments this must be increased to 125 microns dry film thickness (d.f.t.) for the best results. Always make sure that the surface is clean, dry, and free from rust before painting.
- Repaint, ensuring that sufficient paint is applied and making sure that paint gets into corners and crevices.

Prevention:

- One suggestion to help achieve the required film thickness is to use a different colour as a first coat. We usually suggest a first coat of dark grey and followed with black to ensure that the sprayer covers every part at least twice to help obtain the correct minimum film thickness. Black on black is hard to see and therefore it is difficult to assess the coverage correctly. You can also use most colours as a base for most colours of topcoat, which enables any surplus or redundant stock to be used up easily, so there is never a need to have any waste material with Vinylast™. With experience it is possible to judge the appropriate thickness quite well.
- Many times this problem can be traced back to thinning the paint excessively. Please note that for a conventional sprayer no more than 10% thinner should be used if possible and if more is needed consider buying a new spray unit.
- To ensure that the correct film thickness is applied a film thickness gauge (29PTG01) should always be used. These are available in mechanical and electronic versions for use on dry product or simple, inexpensive wet film thickness combs can be used. These can be plastic or slightly more expensive metal combs. A quick rule of thumb is that the wet film thickness is about 2.5 to 3 times the dry film thickness (d.f.t.). The difference between wet and dry film thickness is due to solvents evaporating during the drying process.

4 The paint is peeling off a galvanised surface

This may be an adhesion problem, but could also be caused by applying FAR too much paint in a single coat.

Solution:

- The paint may still be soft, so it could be worth allowing more drying time.
- Usually the only solution is to strip the paint, and start again, with good preparation and applying coats as recommended.

Prevention:

- All surfaces must be clean and oil free before painting. Please see Advice Sheet 1 on how to prepare the work for painting.
- Peeling can also be caused by applying FAR too much paint.
- If the galvanised surface is bright and shiny apply **Brundle Mordant 'T' Wash (Product Code: 29MTW05)** before painting.
- Bright shiny galvanising could also be abraded first before painting with Vinylast™.

5 The paint is not drying and is very soft:

The thicker the coating, and the more thinner that has been added, the longer it will take to dry and develop the final hardness. When too much paint is applied at one time, the paint can stay soft for days but it will harden over time as solvents gradually evaporate. Please note: Drying times may vary according to temperature and humidity so it will dry better in a warm dry atmosphere. Always handle newly painted products with care. Some coatings may take a considerable time to become fully cured.

Solution:

- Leave too dry in a warm, dry place until the paint is completely dry. This can take some time, but the surface will eventually harden,

Prevention:

- Building up the thickness with two or three thinner coatings and leaving to dry for a couple of hours between coats, will lead to much faster hardening than one thick coat, because the solvent will evaporate more quickly.
- Apply several thinner coats. Too thick a coating will surface dry and trap the residual solvent in the film which then acts as a plasticiser keeping the film soft for several days, and if it is damaged or removed you would find residual solvent smells. In these early stages it could appear that the coating is peeling if damaged or cut into. (See peeling.) Too thick a coating will dry hard throughout eventually, but in severe case it can take up to two weeks.
- Do not add more thinners than you need.
- Please check that you have used the correct thinners for the product. Other thinners may slow down the drying process or cause other problems.

6 The colour of the paint does not match the colour on my previous order.

If you painted and installed external work several years ago, and then added some new work or have repainted a part of the work recently, then a colour difference can sometimes be noticeable as all paint changes in sunlight over a period of time. Even internal work will change colour over time.

However, if you painted a job just last week and opened a new can of the same colour which was noticeably different, then something is amiss. In this case please make a note of the batch number on the base of the can or date and colour on the front label and contact us.

The colour on the work can also depend on having a consistent thickness of paint, this is particularly noticeable in bright colours such as reds, oranges, and yellows, and extra coats may be needed to get an even colour with these more transparent shades (in some cases the base metal colour may be showing through in areas where the coating is thinner).

The colour can appear to vary a little depending on the sheen level.

- Thicker coats will give a higher sheen level.
- A very thin coat will look flat and dull.

With a little practice the operator will become skilful and always apply a similar thickness throughout the job and achieve a consistent finish.

7 A pale grey powder can be seen on the paint

After work has been installed for a few weeks, a grey powder-like film can be seen on the paintwork. 'White Rust' is formed by water reacting with zinc on a galvanised surface and is usually caused by insufficient paint thickness when found on painted galvanised metalwork.

Solution:

Clean the affected area thoroughly, make sure it is dry and apply additional paint to reach the recommended dry film thickness. We recommend using a film thickness gauge. (See Advice Sheet 2.)

Prevention:

Always apply to the recommended dry film thickness. This can save time and negate the necessity for return visits.

8 The paint is very thick in the can

If the paint is very thick when you first open the can, it may be caused by the length of time the paint has been stored. The majority of paints have an unopened shelf life of about a year or a little more if stored in good conditions. (Some types of cellulose base paints may only last for six months.) Paint will always thicken up as solvents evaporate. All our paints have a batch number on the can, so in the event of any problem, please make a note of the batch number and your invoice number so we can trace when it was made and purchased. This makes it easy to check against retained samples which are taken from each batch.

Solutions:

- Do not open cans until you will be using the paint. This will help to slow the rate of solvent evaporation.
- Always thoroughly mix the paint before use. If it is still too thick to spray, then add a small amount of the appropriate thinners and mix well.

Prevention:

- If you have paint left over, make sure the lid fits tightly into place to prolong the usable life of the paint.
- Try to use your paint within a few months of buying it.
- If you are using Vinylast™ please remember that you can use any remaining paint as the first coat on the next job if you are spraying, even if it is a different colour. This helps to avoid any leftover paint and makes it more economical.
- If you only use part of a can, then make sure the lid is sealed well after use.

9 The painted work has a 'misty' appearance after drying

This is called 'bloom'. It can happen if the temperature is quite low, or the paint is too cold. It can also happen if too much thinners is added. Storing the paint above 5°C and applying between 12°C and 22°C should prevent this problem.

Solution:

If 'bloom' occurs, try wiping the surface with White Spirit. A quick wipe may restore the finish to black. You may also try to spray a mist of xylene, but do not rub the surface with a cloth if xylene is used as it will soften the surface and may drag the paint.

10 How to repair any handling damage after installation

- Always transport and handle painted work with care – this can save time repairing damage to the paintwork cause during transportation or installation.
- For a small area, installers find that using a matching aerosol gives better results than painting by brush. It can easily be faded into to the rest of the work and built up slowly. Check our website for Aerosol details.
- If there is a deep scratch use a small amount of **Brundle No. 1 Industrial QD Thinners (Product Code: 29002)** on a clean cloth (use our **29SW68** or **29RT150** Lint Free and Low Lint cloths) to wipe the edges of the scratch. This will help to give a smooth appearance. Then follow up by spraying several coats with an appropriate F H Brundle aerosol. You can also use a brush to apply several layers of thinned Vinylast™ paint.

IMPORTANT

- Correct Health and Safety procedures must be followed at all times.
- Always wear appropriate clothing and PPE. Please consult our Health and Safety Data Sheets. Full Data sheets are available from our all our branches.
- Basic information is available on the cans, but we strongly recommend all users to read the full data sheets for each product.
- Data sheets can be viewed or downloaded from our website at www.fhbrundle.co.uk by searching for the product and then clicking on the SDS icon. You can also call +44 (0) 1282 834545 (Mon-Fri 08:30–16:30) and we will be happy to email MSDS information or post a copy to you.
- NEVER have any naked flames in the vicinity when you are painting or spraying.

Tip

- Always use the correct thinners for the type of paint you are using. If different solvents are used there could be a reaction between them and the paint. If in any doubt we suggest that you try a small area before painting the whole piece.
- Please see our other Advice sheets for other useful tips and information about painting ironwork

Finally...

We hope this information has been useful. As always we try our best to provide a friendly and helpful service, so if you have any further **questions please do not hesitate to contact our staff who will be pleased to help. If they don't have the information to hand then they will do their best to find it for you.**

Please visit www.fhbrundle.co.uk for a full range of products and our online order service. You can find a list of all our depots and contact numbers on our website. You can also e-mail sales@brundle.com for prompt attention.

A few examples of ironwork painted with Rourke's Vinylast™



Semi-Gloss Smithy Black Vinylast™ with Copper Patina highlights.



Above: Moss Green Vinylast™ RAL 6005 | Below: Graphite Vinylast™ with Gold Patina



Whilst every effort has been made to ensure the accuracy of the information supplied. F.H.Brundle cannot be held responsible for any errors or omissions. This product must only be employed for its original intended use. Any other use is wrong and potentially dangerous. Installation must be carried out in full compliance with current regulations. F.H.Brundle cannot be held liable for any damages resulting from wrongful, erroneous or negligent use.

Southampton

Tel: 023 8070 3333
Fax: 023 8070 5555

Rainham

Tel: 01708 25 35 45
Fax: 01708 25 35 50

Ilkeston

Tel: 0115 930 2070
Fax: 0115 951 2455

Birmingham

Tel: 0121 565 8282
Fax: 0121 565 8292

Haydock

Tel: 01942 86 88 88
Fax: 01942 86 88 99

Edinburgh

Tel: 0131 335 5999
Fax: 0131 335 5911

Glasgow

Tel: 0141 332 3231
Fax: 0141 332 7325



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www.fhbrundle.co.uk
sales@brundle.com