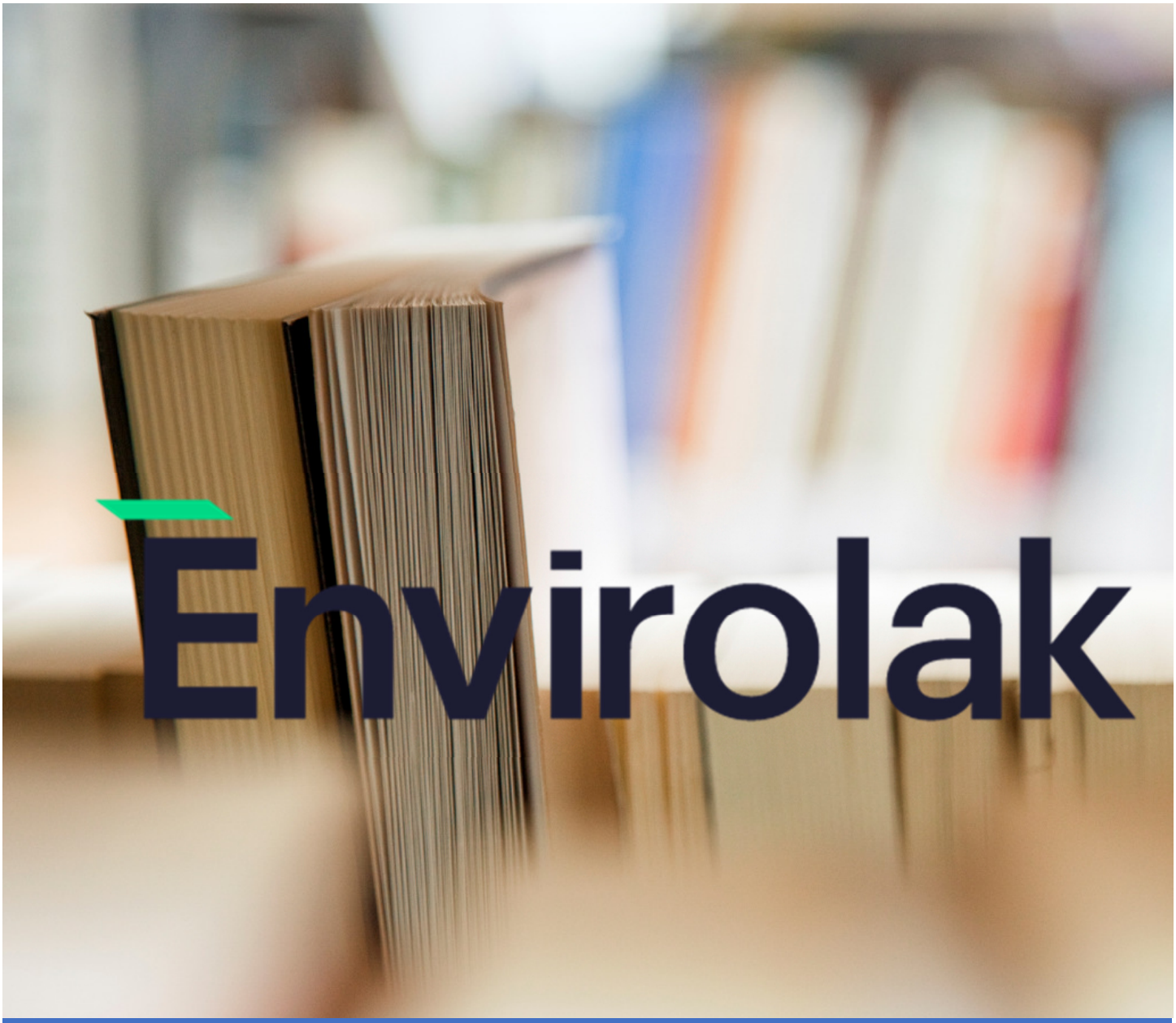

Water Based Wood Coatings Troubleshooting Guide

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Dirt, Dust, Chunks, or Lumps

Grainy or dirty product that is noticeable in the paint can prior to application.

Possible Causes	Solutions
If material has been transferred to a metal container there may be rust in the can. The failure can be seen emptying a can and checking for corrosion of the metal.	Filter before use and replace the can with plastic or lined metal.
If seen in a low sheen topcoat this can be caused by precipitation of the flatting agent or poor mixing prior to use. Check by pouring some material on clear glass, it will appear as small white chunks.	Mix thoroughly with a mechanical mixer and filter product before use.

Floating

During storage, one or more pigments in a stain or paint separate from the product and float on its surface. The separation is mainly due to the difference in density between the pigment and the base material.

Note: This separation occurs quite often and is only an issue if the colourant cannot be re-incorporated into the paint with mixing or if the colour float appears in the applied finish.

Possible Causes	Solutions
In case of unused product: prolonged storage period	Stir the product or shake vigorously to bring it back to a uniform colour.
If product had been used and then stored floating can be made worse by excessive dilution and prolonged storage.	Stir the product or shake vigorously to bring it back to a uniform colour.
In the case of a pail already partially used gelling can be caused by addition of unsuitable components that cause product gelling (catalysts, incompatible solvents, etc.)	Replace Product

Incorrect viscosity

The supplied product has a viscosity that appears higher or lower than reported in the technical data sheets.

Possible Causes	Solutions
Higher viscosity	
Loss of water due to an error re-sealing the container by the consumer, who, after partially using the product left the container open or did not close it carefully.	While stirring, add the appropriate thinner (normally water) and bring the product to the application viscosity outlined in the technical data sheet
Storage at too low room temperature (viscosity is influenced by temperature; lower temperatures increase product viscosity).	Return the product to its operating temperature, and measure viscosity when it is at 20°C.
Lower viscosity	
Some tinted products have naturally lower viscosity. The surfactant used to grind pigment pastes interferes with the thickening agents present in the coating.	Do not reduce the product prior to use. If the product has runs/sags you may require a thickening agent.

Settling or Sedimentation

Heavy deposits on the bottom of the can of fillers, pigments or particles, which cannot be dispersed back into the coating.

Possible Causes	Solutions
Prolonged storage period: each filler or pigment contained in a coating product tends to settle on the bottom over time. The result of this is directly proportional to the length of product storage.	In all cases, it is necessary to mix/shake the product. In some cases, you may need prolonged mechanical mixing/shaking. For extreme cases in which you do not succeed in making the product homogeneous with manual or mechanical mixing, it is necessary to replace it.
In the case of partially used can, low viscosity due to excessive dilution can accelerate the settling of pigment particles.	

Strong Odour

A strong smell when using the coating.

Possible Cause	Solutions
Product degradation over time or due to bad storage (heat).	Water based products that have been exposed to bacteria can begin to have a "rotten" smell over time. We use in-can preservatives to help prevent this, but product that has been opened several times for use or very old product is susceptible to these micro-organisms. If your water based coating has a strong rotten (sulphur) smell it should be disposed. Ensure that coatings that will not be in use frequently are tightly sealed and stored in a cool, dry area as exposures to air and heat will accelerate the bacterial growth.
The exhaust system in your facility is not operating properly.	Check the following: • Air intake should be turned on • Air vents must be open • Ensure that air filters are not clogged • Exhaust systems can move sufficient air volumes

Skinning

Surface layer of a coating material drying in a container, caused by the reaction of oxygen or moisture in the air with the product over time.

Possible Causes	Solutions
Improperly sealed container	Check the seals on pails, especially those resealed after partial use, remove the film and filter before use.
Prolonged storage	Do not use materials beyond their shelf-life and be sure to rotate new stock to always use oldest products first.

Bubbling/Air Entrapment

Bubbles or trapped air appears in the finish film during application or as the material is drying.

Possible Causes	Solutions
Excessive wet film thickness applied (the film dries more quickly on the surface, trapping water or co-solvent, resulting in the formation of bubbles)	Reduce film build and add retarding solvents to slow the drying of the film surface, allowing the air to release.
Elevated room temperature (the film dries more quickly on the surface, blocking the solvent evaporation, which remains trapped and forms bubbles)	Add slower thinners to slow down the drying of the film surface or reduce the air movement in the drying area
Too high viscosity of the product applied.	Reduce the viscosity with water prior to spraying
Too high air pressure during spray application	Spray at a lower pressure
Poor surface preparation (substrate “gasses", this means it does not wet properly, causing the formation of bubbles)	May require another sealer coat to adequately fill the substrate or a lower viscosity sealer (or primer) to penetrate the substrate rather than bridge pores.
Primer or sealer broken through during sanding	Use one more coat of basecoat, sanding it without breaking the panel.
Use of cheap paint thinners, containing poor, unsuitable solvents	Use more suitable thinners, please refer to technical data sheets
Cold substrate or coating	Materials should be applied at or above 16°C. Allow the panel to reach ambient temperatures.

Creasing

This film defect is specific to roll and brush applied coatings and appears as parallel cracks on the surface of the panel.

Possible Causes	Solutions
Excessive quantity applied, the high bridges are mud cracking	Thin using water. Apply less material or brush/roll out more evenly, this may require a change in the roller material.
Very cold room temperature and cold product, which causes an increase in viscosity	Warm up the room and the product. Materials should be applied at or above 16°C.

Filter clogging

Characterized by frequent blocking of the filters during application, caused by particles of dirt, resin, pigments, or matting agents.

Possible Causes	Solutions
Because of prolonged storage after opening, the product has skinned and the skin was stirred back into the material	Filter the product before use
Use of dirty containers for product preparation / mixing	Pre-filter the product before use
Additives (pigments or matting agents) added in excess just prior to use	Stir and shake well to obtain adequate dispersion
The filters of the application equipment are too fine	Replace filters with more appropriate ones
Precipitation caused by the use of unsuitable solvent	Check the type of thinner used. It must be compatible with water and may even require pre-mixing with water prior to addition.

Fish Eyes

Fish eyes usually occur when there is some form of contamination or incompatibility either on the substrate or in the coating. The source can be difficult to identify. Below are some of the most common causes of fish eyes:

Any and all of these solutions may be to add a "fisheye eliminator". Consult your technical sales representative before adding any flow additive to your coating.

Possible Causes	Solutions
The surface has not been properly cleaned	Brush or blow clean the surface after sanding and before coating
Presence of oil or silicone on the surface to be coated	This is a common, but difficult to address issue found most often when recoating existing finishes. First try washing the surface with a solvent. Oil and silicone contaminants can be cleaned with mineral spirits/varsol but may require stronger solvent blends depending on the contaminant type and amount present. Scuffing the surface may work as well for waxes or polishes that have penetrated the surface of the base layer. As a final resort, the coating may need to be chemically stripped and refinished.
Use of rubber gloves treated with silicone products	Replace the gloves with natural latex or nitrile. This failure will show as fingerprint smudges in the finish, especially thumb-prints near edges as panels are handled.
Traces of polishing compound that are incompatible remaining on the surface to be finished.	Clean the surface with an appropriate solvent/detergent solution depending on the compound used.
Presence of oils or condensation water in the air lines coming from the compressor.	Check to ensure that your water separators on the air lines are installed and working. This often occurs immediately following maintenance to the compressor. You may need to change air lines that have been contaminated with oil. Clean and overhaul the compressor as a last step.
Dirty or contaminated containers	Use clean/new containers for holding your coatings.
Adding of incompatible dyes or other additives in the product before use	Use only compatible additives, consulting the technical sheets or your sales representative for advice.

Slow drying

Product dries too slowly.

Possible Causes	Solutions
Ambient temperature is too low	Waterborne coatings should not be cured at temperatures below 16C.
Wrong reducer or co-solvent added	Most products should only be reduced with water, in the case of using retarder solvents follow the addition advice from your technical sales representative to avoid excessive dry times.
Excessive wet film build applied	Apply the quantities suggested in the technical data sheets, usually 4-6 wet mils
Substrate temperature is too low	Make sure the panel is around room temperature before coating
Wrong drying equipment settings	Ensure the following: • speed of the conveyor system • temperature in each tunnel section • proper ventilation (air intake and exhaust)

Pigment floating

Characterized by one or more pigments in the coating separating from the product and coming to the surface changing the overall colour.

Possible Causes	Solutions
Excessive thinning and too low viscosity during application	Use less water
Insufficient mixing prior to finishing	Shake or stir very well before use. If you are tinting your own colours mechanical mixing is recommended.

Patchy/Irregular surface absorption

Dry or patchy appearance caused by excessive surface absorption, uniform or different from area to area.

Possible Causes	Solutions
Poor quality substrate: veneer, particle board, plywood, thin fiber panels, etc.	Change the coating system according to the substrate quality, different stains, more coats of sealer, products with higher solids and be sure to follow product application recommendations.
Veneers glued using unsuitable glues	As the failure is usually caused by excessive glue fluidity, glue should be thickened
Surface sanding with too fine grit sanding paper (the coating is not evenly absorbed by the wood)	Sand using coarser sanding paper, allowing better coating absorption
Too coarse surface sanding (excessive absorption of the stain and/or sealer)	Use finer sanding paper, thus limiting uneven absorption, this may also express itself as sanding "whorls" in the stain
Excessively low application viscosity	Increase viscosity adding undiluted product
Insufficient quantity applied	Increase the quantity of the product applied

Insufficient substrate wetting, Bridging

The product does not adequately wet the surface, creating gaps, lines and high spots that accentuate coarse textures in the grain.

Possible Causes	Solutions
Product unsuitable for the type of wood	Change to another product. Some very oily woods can actually repel waterborne coatings from their surface, especially in deep grain where oils and tannins can be higher in concentration.
Product with too high solid content	Use more water to reduce solids or change to a different product
Too high product viscosity	Thin with water or a water based retarder

Runs/Sags

Irregular flowout of the paint immediately after application, runs can appear as drips, sags, waves or scrolling.

The failure is most often seen during vertical applications or horizontal application on heavily profiled pieces.

Possible Causes	Solutions
Too much product applied	Reduce the quantity of product applied, ensure that pump and gun settings are correct and that the spray gun is not too close to the part during application.
Too much reducer or too slow evaporation rate.	Use water only instead of a co-solvent for reduction and use less water.
Too low room temperature (slowing the dry)	Warm the room or start coating when the room temperature is more favourable
Product having too low a viscosity	Increase air pressure to get a better fan, apply two light coats wet-on-wet instead of one heavy coat.
The product is not suitable for this type of application (e.g.: unsuitable for vertical application)	Use suitable products according to the technical data sheets, possibly consulting your technical sales representative

Thickening

A gradual increase in viscosity of the coating to the point where it is noticeably thicker than normal.

A thicker than normal application can lead to other problems such as high film build, poor flow or wetting, air entrapment or striping.

Possible Causes	Solutions
Aged material	Waterborne materials increase in viscosity as the product ages. This is natural and can be remedied simply by thinning with more water prior to application.
Water loss by evaporation during application, either due to elevated application temperatures, abnormal or excessive mixing, or prolonged exposure to air.	It is good practice to monitor the application viscosity, making sure to thin the product with small amounts of water as required.

Adhesion

Loss of adhesion of the coating to the substrate or between two layers of coating.

Possible Causes	Solutions
Incompatible stain	Waterborne coatings may not be compatible with some heavily oiled solventborne wiping stains, especially if they are not allowed to fully dry. Please check adhesion on a test panel prior to scaling-up production.
Difficult to adhere to substraate (impregnated papers, exotic woods, laminates, plastics and other special materials)	Depending on the substrate, you may need to use specialized sealers or prepare the substrate by scuffing and washing in order to obtain good adhesion.
Coating is not fully dry	Extend drying time or increase curing temperatures and air movement. Adhesion can appear poor if the finish is still soft.
Improper or inadequate sanding. Adhesion is not only chemical, but physical. Overused sandpaper or too fine a grit can polish the surface and reduce adhesion	Check the sanding and sandpaper type and condition.
Excessive moisture in the wood. Substrate that is not properly dried or has been exposed to high humidity conditions for extended periods of time will retain water and thereby decrease the ability of the coating to wet the wood and adhere properly.	Ensure that the moisture content of your substrate is not too high (for the species). In winter, leave the pieces to acclimatize before painting.
Allowing the first coat to sit for too long after sanding and prior to the application of the next coat. As a coating rests, it cures and becomes harder, limiting chemical adhesion.	It is recommended to apply finish coats within 8 hours of sanding. If pieces sit longer than that they should be re-scuffed to promote physical adhesion.

Whitening

Formation of a white haze in the film during or after drying that impairs clarity, especially over dark stains.

Possible Causes	Solutions
Presence of incompatible substances in the wood	Sand to raw wood and re-coat, may need to change to an insulator or tie-coat for sealing the substrate.
Early packing of the finished product (before complete drying of the top-coat)	Wait for the coating to dry before packing, refer to technical data sheets for stack times.
Air trapped in the film can appear as white haze because of the presence of micro-bubbles in the finish.	Thin the product more, and slow the drying process with appropriate thinners. It will also help to apply less wet film build during application.
Water in the compressed air line getting into the finish.	Check the efficiency of the moisture traps on the compressed air line. Water from air lines tends to be dirty or contaminated with oil and is generally not compatible with water based coatings. This can also cause fisheyes.

Bleeding

Migration of certain colour components from a coat of paint to another that causes a change in the final colour.

Possible Causes	Solutions
Presence in the coating of dyes (usually) that are soluble in the subsequent layer of coating.	Change the coating formulation, using products with insoluble pigments.
Insufficient dry time of the stain.	Ensure stains are dried prior to finishing.

Blushing

Blushing occurs when there is high humidity. The problem is much more prevalent in solvent based products, and is caused by condensation of ambient moisture into the finish panel due to the cooling of the panel itself by solvent evaporation.	Try not to apply solvent based coatings during very humid conditions. Alternatively, use retarder solvents that will slow the evaporation rate.

Brittleness

The coating is too brittle after application.

Possible Causes	Solutions
Coating was applied in an incompatible system. For example, water based coatings over an acid catalyzed basecoat can lead to brittleness and loss of adhesion.	Only use products and systems recommended by your Envirolak sales representative or recommended on our Product Information Sheets. Thoroughly test any "mixed chemistry" systems prior to production runs.

Chalking

A film generated on the surface of the coating (usually white) caused by release of pigment from the film. Almost exclusive to exterior coatings, this is caused by the degradation of the binder.

Possible Causes	Solutions
This type of failure is generally due to the quality of the product: • unsuitable pigments • incorrect ratio pigment / binder • unsuitable binder • use of a product recommended for indoor use on outdoor items	Remove the coating and refinish. In some cases, where chalking occurred over a very long period (several years) it may be possible to wash the surface of the coating to rejuvenate the underlying colour, but eventually you will need to refinish in order to provide protection to the substrate.

Coarse Finish/Gritty Finish

Something in the coating, usually a top-coat, which gives an undesirable rough finish.

Possible Causes	Solutions
Residues of sanding dust	Check the exhaust on the sanding machine to make sure it is cleaning panels properly.
Rusty cans	Use plastic containers where possible with water based materials to avoid rusting over time. Only use lined metal cans or stainless-steel vessels even for temporary storage.
Material that has aged too long causing resin kick-out or very heavy settling that is unable to reincorporate with mixing.	Filter or change to another batch.
Use of unsuitable additives (colourants, matting agents, slip additives, defoamers, etc..), which are not compatible with the resin system and cause seeding or precipitates.	Do not add anything to Envirolak coatings without first consulting your technical sales representative.
Dusty environment	Clean spray areas frequently. Try to eliminate strong air movement in the application/ drying areas in order to keep dust down. Ensure that incoming air filters are changed on a regular maintenance schedule.
Trapped air	See the section on Bubbling in the Wet Film
Dirt may be environmental (dirty booth or filters)	Ensure that there isn't too much buildup of overspray on the floor of the booth or in the exhaust filters. A mist spray of water in the booth can help control dust for a short period of time, but preventative maintenance is the key here.
Dirt or paint bits from equipment.	Ensure that the spray gun and lines are clean prior to use (and afterwards!). Lines may need to be flushed or soaked in solvent to remove dried on materials that have accumulated.

Cracking

Small or large cracks that appear after the coating has been applied.

Possible Causes	Solutions
Substrate failure. This is one of the more common causes of 'post-application' cracking. Wood that has been improperly kilned will absorb or release moisture on aging and will move dimensionally. This is also often seen in veneers that are too thin or have not been glued down properly	Use quality sourced substrate that is stored in a conditioned facility to control moisture content. Ensure that veneers are of high quality. Applying a thinner layer of coating will make these cracks appear less prevalent.
Too low curing temperature	Less of an issue with water based products than in solvent, you should still ensure that products are applied and cured at or above 16 Celsius
Too much product applied (deep and enlarged cracks). The thick coating does not allow for enough flexibility in the substrate once it has dried down.	Sand back to raw wood and re-apply the finish, be sure to follow the recommendations outlined on the Technical Data Sheet for the specified product
Excessive cross-linking of the product caused by excessive catalyst (splits and web all over the panel)	If using a two-component product, be sure that you are using the correct hardener and at the correct ratio. Refer to the Technical Data Sheet for mixing ratios.

Tacky film

The coating does not completely cure, even after long periods of time.

Given the close interconnection with the drying problems, for causes and remedies on this subject please refer to the paragraph relating to irregular drying

Possible Causes	Solutions
Cross-contamination from another material into the coating being applied.	Re-apply the finish using fresh new material

Insufficient hiding in a pigmented coat

Pigmented product does not sufficiently hide, causing an apparent change in colour to the final film or forcing the user to apply more material than recommended to achieve the correct colour.

Possible Causes	Solutions
Product is not fully stirred (part of the pigment has settled in the can)	Use mechanical agitators to stir the product in the can. This is especially true as a product ages.
Excessive use of thinner. Some pigment particles are very high density and when the viscosity of the product is lowered they settle out more easily.	Apply the product at higher viscosity, or only reduce enough material for immediate use.
Insufficient amount of pigment contained in the finished product	Colour may need to be reformulated with more pigment for your application.
Inadequate wet film applied.	Increase the applied wet film (without exceeding recommended maximums) or apply a second coat.
Some bright pigments such as yellow, blue and red have low hiding power, even in high concentrations.	If possible, for bright coatings, use a pigmented primer that fully hides prior to your colour coat.

Poor Sanding

This covers a broad range of sanding failures: clogging of sandpaper, absence of "powdering", aggressive sanding marks, etc..

Possible Causes	Solutions
Coating is not cured enough.	Allow the coating to dry more. See the section on insufficient dry.
Damaged or worn sandpaper	Replace sandpaper.
Incorrect setup of the sanding machine: • unbalanced cylinders • inadequate cutting speed • incorrect working pressure • poor dust extraction • inefficiency of the belt cleaner resulting in sandpaper clogging	Speak to your technical sales representative for machine sanding recommendations.
Product not suitable for the task (using a topcoat as a primer)	Use products designed for the application, please refer to the technical data sheets

Mottling

Non-uniform gloss in the dry film. Tends to be larger patchy areas.

Possible Causes	Solutions
Uneven spray application.	Use suitable products for your type of spray application (airless, air-assist, HVLP, etc.) and good quality equipment. Be sure to use an appropriate thinner in the correct proportion. Keep the gun at optimal distance so as to wet uniformly.
Applied film is too thin	Apply more coating
Substrate is porous or sanded unevenly	Ensure that the basecoat is applied sufficiently and sanded properly prior to application of topcoat.

Pinholing

Failure seen in a coating film due to the presence of particles or air bubbles in the coating (in the sealers it can be found after sanding; in matt coatings after drying).

Possible Causes	Solutions
Too high application viscosity (air in the film cannot leave, due to film viscosity)	Increase the amount of water used for reduction or use a water/co-solvent blend
Product is drying too fast and skinning over (too high temperatures, insufficient flash time), trapping air in the finish.	Ensure that you have sufficient flash-off time before entering an oven or that there isn't too much air movement in the drying area.
Incorrect spray settings, usually dry spray.	Ensure that your spray pattern is good before proceeding to finish production pieces. You may need to change tip sizes or fluid/air pressures.
Too much product applied in one coat, not allowing all the air to escape the film.	Reduce the amount of product applied

Picture Framing/Polished Edges

Appears as a difference in gloss between the centre of the panel and its edges.

Possible Causes	Solutions
Too much air circulation will affect panel edges more than the center resulting in faster drying and consequent gloss unevenness	Decrease air circulation and make sure that air isn't pointed directly at drying panels
Drying trays are not flat/level, leading to uneven product accumulation on one or two edges	Make sure that products sprayed horizontally are cured on a level surface.
Uneven spray resulting in high and low spots or "fat lips" on the edges	Apply the product evenly, making sure to keep the spray gun back from the panel.

Poor Flow (Orange Peel, Bénard Cells, Pinching, etc.)

One of many surface defects that appears as an undesirable finish in the cured panel.

Possible Causes	Solutions
Spray application is too dry (gun too far from the surface, too high air pressure, spray tips are too small: there isn't enough liquid applied on the surface to allow for proper levelling)	Correct spray gun settings. Use a retarder solvent.
The finish is drying too quickly, causing the surface to skin before releasing water.	This usually occurs because of a draft. Remove sources of air movement during early stages of cure to ensure good levelling.

White Pore

A lightening of occurring in a coating film around wood pores.

Generally only seen in open pore woods, white pore is caused by the inability of the coating to properly wet out the deep grain. The whitening in the grain is more frequent on veneers with dark colours and it gets worse over time.

Possible Causes	Solutions
Sanding dust trapped in the grain.	Clean/blow out panels properly before applying finish.
Product applied is too brittle and chipping out of the pore upon curing.	Use more flexible products and apply a thinner film
Not enough substrate wetting in the deep grain in certain wood species (such as oak, mahogany, walnut, and many man-made veneers).	Reduce the sealer more before applying. Reduce with a mix of water/co-solvent to decrease surface tension. Add substrate wetting agents.
Poor adhesion of the coating to the substrate or the sealer was not properly dried before application of topcoat.	Make sure that the coating is perfectly dry before applying other products on it
Specifically found in veneers (natural and man-made) with open pore, glue from the lay-up process may have pressed into the grain.	Use a dyed glue or increase the viscosity of the glue to prevent seepage. Use of a backed (paper, PSA, etc.) veneer will prevent this as well.

Wrong Colour

The colour is different than expected.

These are possible solutions outside of "the coating was not matched properly during manufacture".

Possible Causes	Solutions
For stains, the final shade with clear coat can be impacted by the following: • Species of wood • Colour of the wood (different shades within the same species) • Topcoat • Sanding • Reduction (and the type of reducers used) • Any differences in application method (spraying, drying, time before wiping, etc.)	In all cases it is necessary to make sure that all application conditions are similar when comparing a colour to standard. Changing any of these factors will result in minor changes in colour strength or shade.
Not enough coating applied. Thin coats will not fully hide either the substrate or the primer coat, making the colour appear different.	Always apply the same amount of coating to obtain the same colour.
Too much coating applied and the pigments are floating. This can be checked during sample cure by doing "rub-up" tests.	See solutions for floating under wet film.
Dyes mixed with pigments (tinters) can "seed" out over prolonged periods of time.	Try to use either pigments or dyes for improved long-term colour stability. Use materials within recommended shelf-life.
In dip applications, instability of water based coating in a tank caused by micro-organisms reacting with wood dust.	Thoroughly clean/blow off the surface to prevent dust from entering the process. Possibly introduce biocides into the dip tank
Changes in the pH of the coating impacting colourants (especially dyes).	The acidity/alkalinity of a water based coating can be influenced by the addition of co-solvents, water, additional dyes, surfactants or even shop contaminants. When making additions to a batch, realize that this may impact the colour as well.
Changes to the master standard over time. This is generally caused by handling/use, UV exposure or yellowing of the coating film.	Store master standards in a cool, dry, dark place and try to minimize handling in the shop. For solid colours, computer stored standards may be advisable.

Incorrect Gloss

After drying, the coating has a different gloss than expected.

Possible Causes	Solutions
Not mixing the coating prior to use. The matting agent, during storage, tends to settle to the bottom of the container and needs to be stirred back in prior to use.	Stir well all products before use, especially low sheen products (gloss<20)
Different wet film thicknesses of the same product can lead to different gloss. Applying a heavy wet film will generally give a higher final gloss.	Try to keep wet film thickness of a spray finish between 4-5 wet mils for best gloss reproduction.
Substrate preparation	Sanding of both the raw wood and the sealer (if used) can have an impact on sheen. Also note that open grain woods like oak or mahogany will give lower gloss readings on a gloss meter because of the light diffraction from the open pores.

Yellowing/Discolouration

Colour change over time of the finished piece.

Possible Causes	Solutions
Dark yellowing. Some coating products (especially solvent alkyds) can undergo a process known as auto-oxidation and change a yellow colour during prolonged storage or darkness.	It's usually sufficient to expose the products to sunlight for a couple days to clear away dark yellowing
Wood yellowing from UV exposure	To eliminate or reduce wood yellowing caused by UV rays, add UV absorbers to the finish. This product is available as an additive in the Envirolak line.
Bleached or dyed veneer substrate. These substrates are notoriously bad for changing colour over time. The manufacturing process leaves the wood more vulnerable to UV light exposure.	Ensure that veneer sources are light stable. If using a wood bleach, ensure that the wood has been neutralized and washed after application of the bleach. Keep finished pieces out of direct sunlight.