



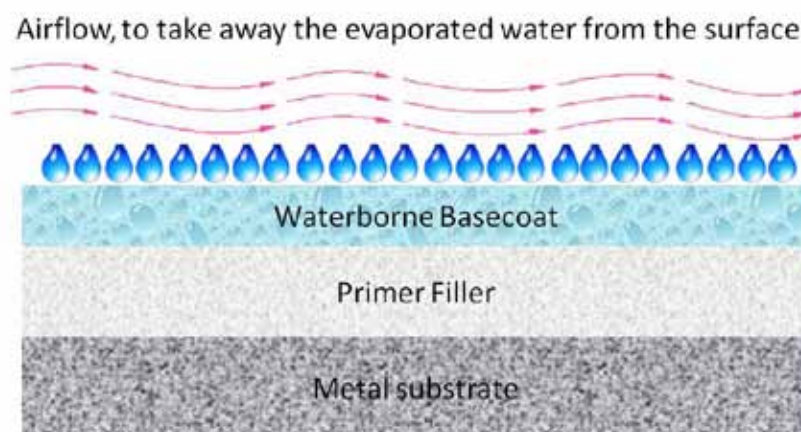
CONTENTS

- 1) [Waterborne paint - part 1](#)
- 2) [Climate control.](#)
- 3) [Storing and usage of paint](#)
- 4) [Stories from the body shop](#)
- 5) [Best in class!](#)
- 6) [Say what?](#)



Waterborne paint - Part 1. How does it dry, and how can we improve productivity.

One of the main attributes of waterborne paint is that it evaporates slower than solvent paints, does. The second factor is that the humidity and temperature are of importance when you look at the evaporation rate.



What happens when water evaporates out of the paint layer?

Once the water component starts evaporating from the basecoat, it sticks to the surface due to its hygroscopic characteristics, with this another problem arises. Water is a good insulator, the micro thin layer of evaporated water on the basecoat prevents the evaporation of more water. The only way to eliminate this is to clean the surface from this micro thin layer by blowing air over it under an angle. (As indicated with the red lines in the image)

Air can be used in various ways to clean a surface:

- Compressed air blowers, hand held, on a stand or in the ceiling.
- Fixed blowers in the corner of the spray booth.
- Fans in the ceiling or corners of the spray booth.
- Re-directed air, through slots in the side of the spray booth.

In this issue the focus will be on blowers driven by the compressor, in the next TechFlash the focus will be on the other options.

Blowers, hand held, on a stand or in the ceiling.

The blowers can be used as a handheld system, on a stand or in the ceiling. Blowers are driven by compressed air and use 325 – 350 ltrs/min. It is important to make sure that the compressor is big enough to drive the blowers. The blowers are continuously blowing air while they are air drying the basecoat for 5-7 minutes.

Publication information

This newsletter is published by:
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A few elements should be taken into account when using blowers:

- Always keep the spray booth nice and clean, all of the devices mentioned above create a large airflow, somewhat like a mini typhoon in the booth. So any dust or contamination can potentially be blown onto the wet paintjob.
- When using compressed-air driven devices, make sure that the compressor is big/strong enough.
- Most systems can be used during forced drying of Clear Coats etc. Make sure that the blowers DO NOT switch on directly once you start baking as that will cause solvent popping. After 5-10 minutes in to the bake time they can be turned on, and this will improve the heat transfer to the vehicle - therefore shortening the total baking time.
- If you decide to have an oversize spray booth, integrated venturis will not work as the booth area is bigger. The distance of the device from the vehicle is further, making it less productive/effective.

Always ask for referrals. This way you can see how the equipment works before you make huge investments.

Part 2 will be featured in the next TechFlash.

Climate control in water based paint

Now that water based paint is used and sold more globally, we encounter different ways to use the products in different climate conditions throughout the world. This means we have to take into account different degrees of humidity and temperature.

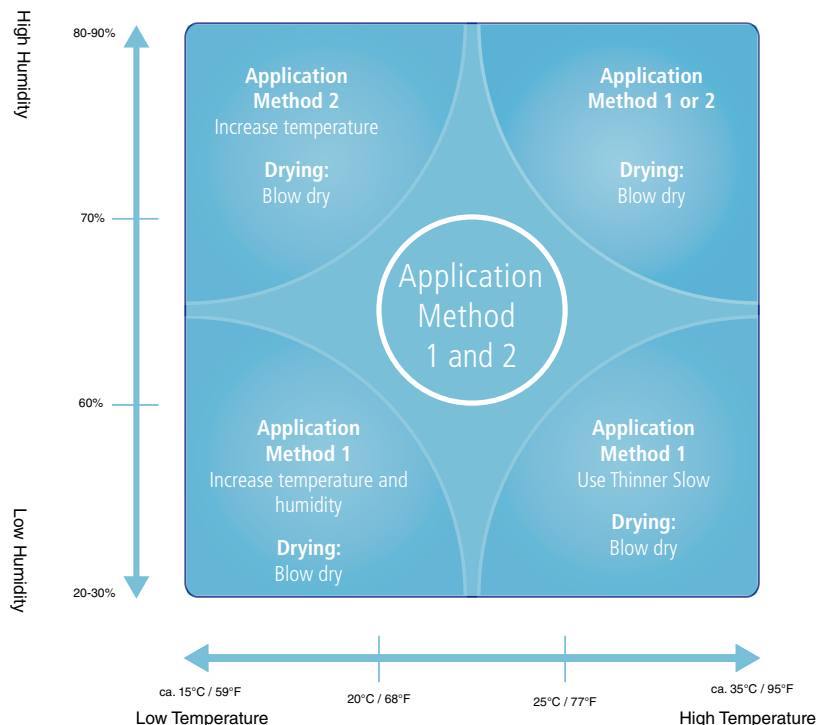
As an aid to the end user, we developed a matrix that helps to choose the best possible application method.

The matrix shows climate conditions with high temperatures and high humidity and lower temperatures with low humidity.

In the centre area of the matrix it shows the average condition of 60-70 % humidity and 20-25 °C, where method 1 and 2 comfortably can be deployed.

In more extreme conditions, the best application-choices are clearly indicated in the corners of the matrix: method 1 and method 2.

In all conditions, however, blow drying the basecoat is a must to obtain sufficient drying.



STORING AND USAGE OF YOUR PAINT.

The importance of properly storing and using your paint chemicals is high.

Not properly sealing containers after use could lead to product contamination, solvent loss, safety issues and additional costs. Let's look at a few examples.

Not sealing the tops of your hardeners could lead to contamination and solvent loss. Not to mention that hardeners are moisture sensitive and this could lead to seedy paint and/or drying problems in your 2K products.

Not sealing the tops of your thinners leads to solvent evaporation especially in high temperatures. Thinners are blends of different types of solvents from fast to slow. These different blends give your basecoats and/or 2K products proper flash-off, dry times and/or metallic control in basecoat colors at different temperatures. When you leave the tops unsecured your fast evaporating solvents leave first. When this occurs products do not spray the same or dry the same as they were intended to by the paint manufacturer.

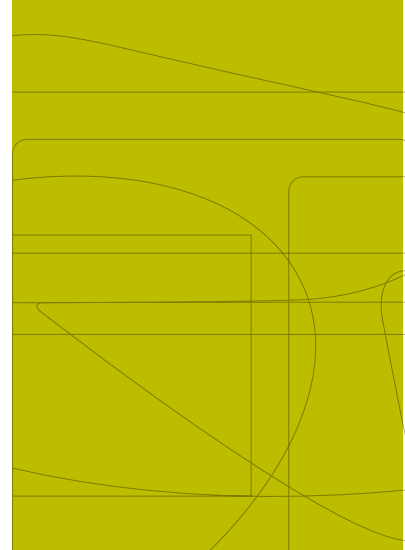
One thing we see paint technicians do quite frequently is the way they handle wax and grease removers. They will cut a hole in the top of the can to pour out of, or the cap is missing completely. This

leads to the faster solvents leaving quickly or contamination. This could mean that the degreaser loses its ability to clean properly over a short period of time especially if it is left in the spray booth during a bake cycle. Also, not to mention the money lost and safety issues due to evaporation.

When dealing with your paint products safety should be your first priority whether you're storing, mixing or applying.

- When storing paint products do not store them in extreme heat this could lead to fire hazards or extreme cold this could lead to damaging waterborne products.
- When mixing your paint products always mix in a well ventilated area.
- When applying your paint products always use Personal Protection Equipment (respirator, gloves, spray overall, etc)

Following these simple steps will lead to a safer and cleaner working environment.



Stories from the body shop Available Car

Almost five years ago, a representative from Valspar was asked to come along with a sales representative from Morelli to a Donnington based car supermarket called Available Car.

This was a brand new used car sales site where they have around 3500 cars on site at any one time; they offer customers an unequalled choice of an almost new car in the midlands of the UK. A large stock of used cars can sometimes mean a lot of damage that needs repairing, before they can give the new owner a top quality vehicle. This is where Valspar came in.

After the first meeting with Available Car, Morelli and Valspar, terms were agreed and a mixing system was installed by the Valspar and Morelli tech team. This was five years ago now the partnership is stronger than ever. All the mixing colours that are used are waterbourne products. The shop has the capacity to paint 18 vehicles a day in the main shop. Around 50 smart repairs are completed - in the two available smart repair facility's - a day. One of the smart repair centres is on the same site as the main shop, the other one is 10 miles away connected to another showroom.



The main shop has two spraying booths and 11 staff members consisting of 8 preparation staff members and 3 fulltime painters.

The site's general manager, Russell Needham, said: "the choice to use Valspar that was made five years ago, has paid off time and time again, not only do we get good value for money with this product, we get excellent colour matching for the vast range of car manufactures we cover and receive great service and support from Valspar and Morelli."

Body shop manager, Alan, said: I like to think we from Available Car and Valspar work in a close partnership, if we find a problem with a product or colour we report

and liaise with the Valspar tech team to overcome the issue. The range of colours offered is excellent and it copes well with the vast range of vehicles we work with. Alan had his own body shop for 20 years before starting with Available Car nearly 3 years ago, Alan used a well-known "A brand" for all of the 20 years he had his own body shop but stated that if he was to start his own shop again he would not hesitate to install the products Available Car works with. It has proven to be equally as good as the "A brand" if not better in some cases, with the cost effectiveness he said it is a no brainer in the current global problems.

For big customers like this we have a Key Account program set up at Valspar. This ensures that all updates are current and that we hold regular review meetings with Morelli and Available Car to keep on top of any developing issues and offer solutions to any challenges.



Best in class!

Below you see a picture of a fully restored 1971 Ford Escort 1300XL.



3 years ago Lee Proctor started the restoration of this award winning car. Trying to bring it back to its former glory the car was stripped bare of all its fittings and all its paint. After this all the necessary welding was done and the shell was sent away to be dipped to protect the steel.

After all the preparation the shell was painted, and dried with an infrared arch.

The colour used was Lee's choice, once the base was fully dried, Lee's painter applied the scratch resistant clear coat.

The Escort two door 1.3 XL was the car Lee dreamed about when he was younger. He never managed to get one when he grew up and started driving, so when he saw this for sale many years later he couldn't pass up the chance of having a piece of history and putting his stamp on it.

The finished item has taken just over 18 months to complete but many man hours of painstaking attention to detail to create this work of art.

At the first show Lee attended, the retro car show this a national show, Lee's Escort won best in class.



Say what?

The meaning of pictograms

When you want attention for something important without using words a pictogram is used.

You can use it when you want to say something that is the same in every language, or to emphasize the importance of a text.

A pictogram is a visual and visuals are more concrete and clear than spoken or written language. A pictogram has no language barriers and is without saying a word, the most universal language.

The three ground rules for a pictogram are:

- 1) concrete and clear
- 2) univocal
- 3) simple/easy

Pictograms are used daily, serving as pictorial, representational signs, instructions, or statistical diagrams. Because of their graphical nature and fairly realistic style, they are widely used to indicate public toilets, or places such as airports and train stations.

Valspar uses pictograms for:

- 1) Safety purposes
- 2) Application information
- 3) Product information