



# Spraying Glass with Mirror Paint

## IMPORTANT INFORMATION before spraying the mirror finish

1. Use a gravity gun to avoid waste product. Air cap and jet should be no bigger than 1-1.2mm.
2. Do not mix together too much mirror and hardener at one time, as the product is expensive, however once mixed it will go a long way. You will only need 120grams (1/8<sup>th</sup> of a kilo) to cover 1 square metre. That is over 8 square metres per kilo. Once mixed, the pot life is over 8 hours.
3. Only light coats need to be applied (see video for application method). If applied too heavily you will not get the mirror finish and waste product. Make sure you use a wide fan and plenty of air.
4. For the drying of the mirror you need heat and air flow over the backing surface, if you don't have the air flow you will not get a true mirror effect. The mirror is hazy when first applied and you will need heat and air flow for 15 minutes to clear this.
5. It is essential that you remove all contamination and white marks from the surface prior to application of AVKO Mirror. If you don't then these marks will be very prominent after the Mirror coating has been applied. If you have a glass washer you can clean the glass first with this, then clean with AVKOTE Glass Cleaner. The glass needs to be thoroughly cleaned using our AVKOTE Glass Cleaner and 100% cotton lint free rags, ensuring that you change the rags regularly. The surface must be crystal clean and smear free.





## RECEIVING GLASS AND INSPECTION

Always inspect the glass when it is delivered to you as your supplier may not accept returns at a later date.

Do not let water get onto the stored glass as this can leave water marks on the surface which cannot be removed and will render the glass useless.

It is very important to inspect the glass critically for any marks, scratches or air bubbles as when the glass is coated the marks will be highlighted by the coating and could make the final product unacceptable for your customer.

If you have very small marks on the glass it may still be useable.



Before any spraying takes place it is very important to make sure that the glass is crystal clean and free from contaminants and particles. It is also important to check the temperature of the glass before spraying as the glass needs to be at a minimum of 20 degrees and above. If the glass is cold then the finish of the product could be affected.



When applying our mirror effect paint onto glass we highly recommend the use of our AVKOTE Glass Cleaner to prepare the surface. Unfortunately we are unable to guarantee adhesion where other brands of glass cleaner have been used.

Some other brands of glass cleaner can be oily which will leave a residue, stopping the paint from adhering to the glass. Vetro cleaner in particular is not suitable for use with our mirror effect paint due to it being an adhesion promoter and its oily consistency, which is not consistent with our product.



## HOW TO SET UP YOUR BOOTH

Glass should be sprayed horizontally on trestles, or a rotating table. It is advisable to apply masking tape to the top surface of the trestles so that any build-up of mirror effect paint can be easily removed.





## PREPARING SPRAY GUNS AND PAINT

Always make sure that your spray equipment is clean and ready to use. Use a gravity gun to avoid waste product, with the correct jet and air cap size **(1-1.2mm will be suitable)**.

Do not mix together too much mirror and hardener at one time, as the product is expensive, however once mixed it will go a long way. You will only need 120grams (1/8<sup>th</sup> of a kilo) to cover 1 square metre. That is over 8 square metres per kilo. Once mixed, the pot life is over 8 hours.

It is important to stir this mirror paint with a mixing stick by hand or in a shaker which should be carried out around 5 minutes before using.

4% hardener needs to be added to mixture and stirred in.



When the mirror finish is ready for spraying pour this into your spray gun using an appropriate paint filter.

Always use all the appropriate safety equipment and extraction for the product being used. Please follow safety data sheets for the product you are using.



STEP  
4.

## FINAL PREPARATION



Always clean the glass just before the first coat is applied with a 100% lint free cloth and an air gun, ensuring you remove any contamination from the surface as this will show up badly when the coating is on.





## SPRAYING FIRST COAT

It is most important that the upmost attention is paid to the application of the first coat as this is going to end up as the mirror finish you are going to see. If any marks or contamination do appear in this coat then the coating can be cleaned off and started again.

The coats must be applied very lightly to the surface. Set the gun with a small air cap and jet (1-1.2mm will be suitable) Use a wide fan and plenty of air but with the fluid tip turned down.

You need to apply 3 coats and dry with your air supply/or naturally between coats. You should only have 15 microns dry film thickness once all 3 coats have been applied. (See Video Demonstration on applying the Mirror Paint)

Apply coats in opposite directions to achieve an even mirrored finish.





## SPRAYING SECOND COAT

Once the first coat has been applied and dried you can then apply the second coat. After applying this coat you can then blow dry the surface again using your air supply.

After the first and second coat has been applied you can blow dry this coat with your air supply or allow to dry naturally between coats.



## SPRAYING THIRD AND FINAL COAT



The surface you are spraying will then need a third and final coat which should be sprayed on as per the previous two coats and then dried with your air supply.

\*Please note this product requires three coats to achieve the right finish. The overall finish should only be 15 microns dry film thickness.



## DRYING BEFORE APPLYING THE BACKING FOIL

All heating methods other than catalytic or Infrared (IR) need to have heat and air flow across the surface of the mirror coated side. This is essential for a good consistent finish. It should be noted that the hotter the temperature and the longer the heat is applied, the more durable and hard the overall mirror finish will be.

**There are 4 different drying methods we recommend for this product.**

### **1. Drying at 35-45 degrees with air flow**

After applying 3 light coats as set out in the application section, the coated glass should be placed in a drying room where air will pass over the coated surface.

After 15 minutes the haze in the mirror finish should be gone and the coated surface will have gone from a matt finish to a glossy finish. It should then be dried for a further 15 minutes and left for a further 16-24 hours at a temperature of around 18-20 degrees. Once this has been completed, a silver foil backing should be applied.

### **2. Drying at 45-60 degrees with air flow**

After applying 3 light coats as set out in the application section, the coated glass should be placed in a drying room where the air will pass over the coated surface.

After 15 minutes the haze in the mirror finish should be gone and the coated surface will have gone from a matt finish to a glossy finish. It should then be dried for a further 15 minutes and left for a further 12-18 hours in a temperature of around 18-20 degrees. Once this has been completed, a silver foil backing should be applied.

### **3. Drying at 120-160 degrees without air flow- oven**

After applying 3 light coats as set out in the application section, the coated glass should be placed in an oven.

After 2-3 hours the haze in the mirror finish should be gone and the coated surface will have gone from a matt finish to a glossy finish. It should then be left for a further 1-2 hours in a temperature of around 18-20 degrees. Once this has been completed, a silver foil backing should be applied.

### **4. Catalytic Dryer must be medium to long wavelength**

#### **Drying at 35-45 degrees using a catalytic drier which is at 150 degrees at the surface of the drier**

After applying 3 light coats as set out in the application section, the coated glass should be placed under the catalytic drier, with a distance of 30cm between the surface of the glass and the dryer. Heated air will pass over the coated surface.

After 15 minutes the haze in the mirror finish should be gone and the coated surface will have gone from a matt finish to a glossy finish. It should be left for a further 1-2 hours in a temperature of around 18-20 degrees. Once this has been completed, a silver foil backing should be applied.





## APPLYING BACKING FOIL

To protect the mirror coating it is advised that you apply a silver foil to the back of the glass. This foil should be applied 5-48 hours (depending on the drying method) after the three coats of mirror product have been applied. The glass will be ready for the foil application from 3-24 hours (depending on the drying method) if the glass has been stored at a temperature of 20°C.

Before applying the foil make sure that it is not damaged as any creases, scratches or dents in the foil will affect the foil finish. Also make sure the environment you are working in is clean and clear of any obstructions.

Firstly roll out the foil carefully over the top of the glass surface, with the foil facing up. Make sure you roll out enough foil so there is about a 5mm overhang all around and cut off from the roll.



Apply a strip of masking tape vertically on one side of the foil; this will act as a hinge when applying the foil to the glass.

Take the other end of the foil, keeping it flat and fold back, away from the glass, so the backing paper to the foil is facing up. Remove the backing paper so the foil is ready to be applied.

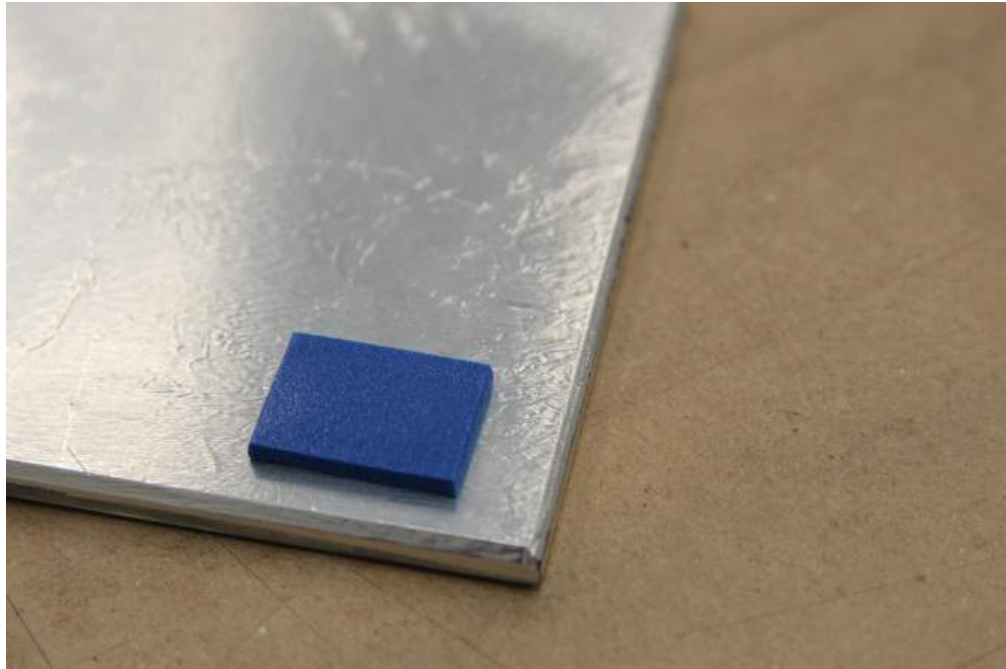
You will need two people for the application of the foil, one person to retain the tension of the foil and to keep it crease free, whilst the other person uses a squeezy to stick the foil to the glass, working the squeezy horizontally up and down the glass to obtain a flat, bubble free foil layer.

Once applied, trim back the edges of the foil to finish off.



## CLEANING AND FINISHING BEFORE PACKING

Glass pads should be used to hold the glass apart to stop any damage from occurring. Any over spray should be removed and the finish inspected before packing the final product ready for your customer.



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