

## MasterTop DAP - Application Instructions

### 1. GENERAL DESCRIPTION

**MasterTop DAP (Decorative Art Picture)** is an innovative flooring system which puts stunning images onto floors in commercial and public buildings, retail and fashion outlets, fitness & health studios, sports & leisure centres and restaurants.

Photos, prints or logos are printed and installed onto a substrate primed in advance with **MasterTop P 650** (depending on substrate quality and specifications) and coated with our self-leveling epoxy layer **MasterTop 1230**, then topped with a clear self-leveling epoxy layer **MasterTop BC 308**. The transparent/clear layer of **MasterTop BC 308** is then sealed with a tough, 2 component, transparent, low emission, water based polyurethane top coat – **MasterTop TC 442W** which also aids cleaning and ensures a matt effect.

For the specific and individual use of these products, the application conditions and their limits, we would kindly invite you to refer to our technical data sheets.

### 2. APPLICATION AND TOOLS

#### 2.1 Application of MasterTop P 650

**MasterTop P 650** is supplied in working packs which are pre-packaged in the exact ratio. Before mixing, precondition both PTA and PTB components to a temperature of approximately 15 to 25 °C. Pour the entire contents of PTB into the container of PTA. Do not mix by hand. Mix with

a mechanical drill and paddle at a very low speed (ca. 300 rpm) for at least 3 minutes. Scrape the sides and the bottom of the container several times to ensure complete mixing. Keep the mixer blades submerged in the coating to avoid introducing air bubbles.

Do not work out of the original container. After proper mixing to a homogeneous consistency pour the mixed PTA and PTB into a fresh container and mix for another minute.

**MasterTop P 650** should be applied when the ambient temperature is constant or falling as this will decrease the risk of bubble formation due to expansion of air that is enclosed in the concrete.

After mixing, **MasterTop P 650** is applied to the prepared substrate by spreading with a rubber or metal squeegee



and finishing with a polyamine/perlon/nylon roller with a hair length of 10 – 12 mm.

If needed, oven dried sand is broadcast into the still wet primer to improve adhesion of the following coat. For material consumption and detailed information please check the available technical documentation or contact your technical service.

## 2.2 Application of MasterTop 1230

Before proceeding with the application of the body coat mentioned above, general inspection of the previous applied layer is required. Avoid walking on the hardened surface by wearing unsuitable or dirty shoes.

**Ideal application temperatures are 15°C to 25°C.**

**MasterTop 1230** is supplied as a 46 kg multi-component pack (Including the colour pack), which are pre-packaged in the exact ratio. Before mixing, precondition all components to a temperature of approximately 15 to 25 °C. Pour the reactor into the base, add the colour pack then mix together until a uniform colour is obtained. Pour the mixed material into a suitable mixing vessel with a capacity of not less than 25L. Start mixing again and add the aggregate component, mixing for 2 minutes or until a lump free mix is obtained. Always maintain the same mixing times throughout the application. Pour the mixed material in a strip along the edge against which the application will start. Start the levelling operation immediately.

**Mixed Material: 46 kg = 25.70 L**

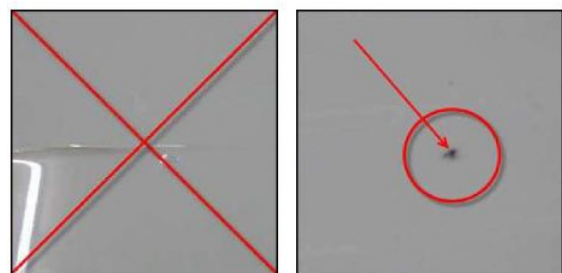
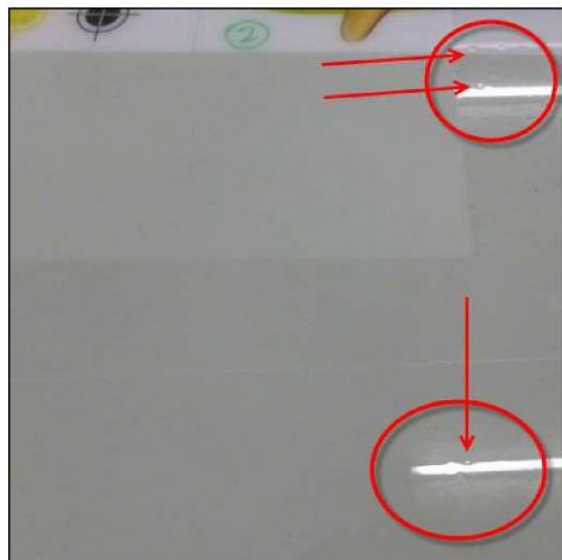
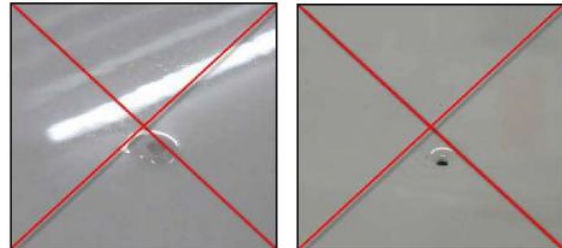
**(1 L = 1.79 kg)**

**Coverage: 2 mm = 2 L/m<sup>2</sup> (3.58 kg/m<sup>2</sup>)**

After mixing, **MasterTop 1230** is applied to the prepared substrate, using a rubber tooth squeegee, notched trowel or scraper.

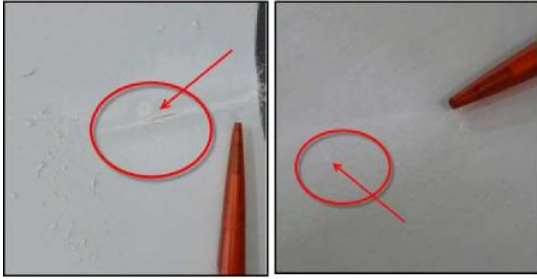


To remove air bubbles, spike-roll the surface after application and depending on jobsite conditions. Make sure that the surface looks good, smooth, well leveled and without any defects like “fish eyes”, “pin holes”, air bubbles or dirt & impurities:



because this will influence the quality of the next step and final system appearance.

If you still encounter such problems, make sure they are fixed before applying the poster to the Previously applied layer, by using suitable sand grinding paper attached to a grinding machine.



For material consumption and detailed information please check the available technical documentation or contact your technical service.

### 2.3 Decorative Art Picture a. Specification and details

The self-adhesive picture/poster should be pre-printed to your design on a high-quality film to ensure it is both robust and light fast.

**NOTE: Please contact Technical Services for poster art suppliers.**

The required resolution of your file depends on both the viewing distance (see below) as well as the final size of your print. Files that are scaled 1:10 offer a good basis for the processing work:

- Viewing distance up to 1 m: 600 dpi
- Viewing distance up to 5 m: 300 dpi
- Viewing distance more than 5 m: 150 dpi

Picture quality scaling as well as the strict calculation of your file to the final size is undertaken by the printing company. Furthermore, it is of a great importance that you let the printing company know the final size in square meters.



1. The following data formats can be sent for printing and processing:

- Tif files in CMYK-mode, uncompressed
- EPS files in CMYK-mode
- Bitmaps in CMYK-mode
- File formats of the following programs as these file formats being compatible with:  
PC: Photoshop, Illustrator, InDesign.  
Macintosh: Photoshop, Illustrator, InDesign.

**NOTE:** Other printing houses may also be used but the quality of the posters must be evaluated locally without our involvement.

b. Before application

To be able to deliver a highly decorative **MasterTop DAP** flooring system in a market where the demands for quality are very high, it is essential that the substrate, precursory stages and the installation of the poster are executed at the highest quality level possible. The following tips should be taken into consideration:

1. The self-leveling epoxy substrate must not present any surface defects or surface irregularities.
2. Any defects in the self-leveling layer (mentioned in 2.2 Application of **MasterTop 1230** or others) that appear before, during or after the application should be corrected immediately.
3. The surface on which the self-adhesive poster is installed must be clean, free of grease, oil and without any impurities which may affect bonding.
4. During installation of the decorative poster, the applicators must do everything necessary to avoid contamination of the substrate or of the decorative poster. They must be dressed appropriately and wear PPE protective shoes. Only the applicators should be allowed to sit and work on the freshly applied epoxy layer.
5. The decorative poster should be stored in a dry place and un-rolled few hours before installation. Any defects in the poster should be noted in advance and all corrective actions should be taken before installation.

6. If the poster must be installed in certain sizes or specific areas of the room, they should be marked in advance. All details and measurements must be made accurately and before gluing the poster on the floor.

Application (Graphic details in Annex 1)

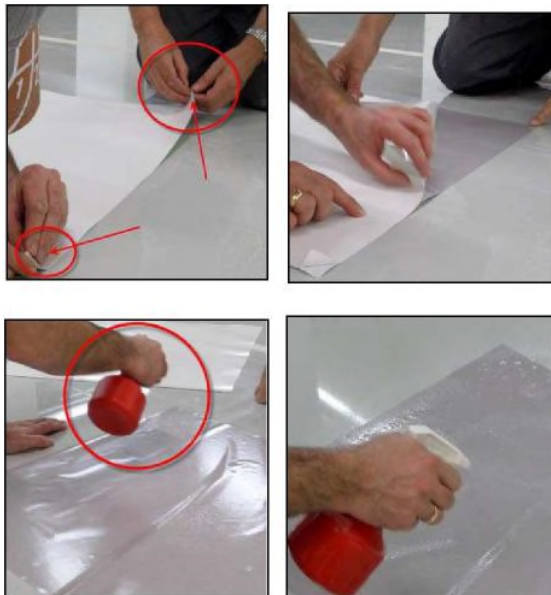
Once you have ensured that the conditions stated above are met, follow these steps:

1. Make a liquid solution of water and soap with a neutral PH. Pour the liquid into a container equipped with an atomizer and spray the floor area where the poster will be installed, as described below:



Make sure that you have sprayed enough solution on the floor as this will facilitate installation.

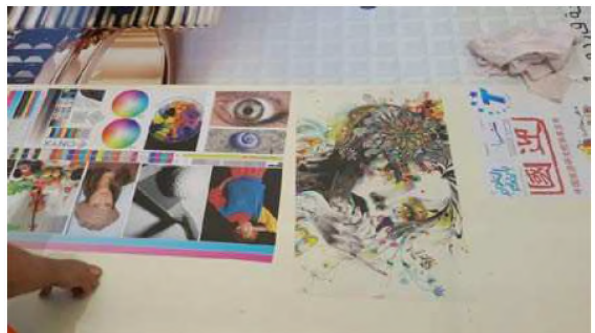
2. Take the poster, place it in a dry area (next to the previously wetted one) and with the decorative side facing down. Carefully remove the protective paper without damaging the poster and then spray the solution on the back of the poster in the same way as you did for the floor, as described below:



3. Turn the poster upside down and start to glue it on the floor. It must be applied by gluing its top part to the floor and then using a rubber scraper/squeegee to push slightly first left-right and then in the opposite direction. Push step by step and make sure that no air is trapped between the poster and the floor.



As soon as you have finished removing the air bubbles, your surface should look like this





Continue to move the squeegee on the surface of the poster (left-right, forward-backward) until the air has come out completely and air bubbles are no longer visible.

Remarks: If you must cut the poster or if, because of its size, you receive several pieces to be assembled, you must carry out the same application steps for each individual piece. Be sure to arrange the images so that the joints will not be visible, and the design will remain the same. Downforce should be constant, and you should also be careful when removing the air not to move the images.

4. After you have finished application of the poster, take a clean cotton cloth and wipe off the solution excess used for wetting the epoxy surface and the decorative poster.

Do not use dirty cloths or cloths contaminated with solvents, oils, or fats which can negatively influence the next layer. Clean the surface well without disturbing/moving the images) and let dry.

5. After installation of the decorative poster a general inspection must be done and the whole area should be evaluated in detail.

Check if any air bubbles have appeared on the surface and if so, remove by using a knife. Prick the air bubble and release the air pressing gently from the outside to the inside.

#### **2.4 Application of MasterTop BC 308**

Before proceeding with the application of the transparent epoxy body coat mentioned above, a general inspection of previously applied layers is required. Avoid walking on the surface by wearing unsuitable or dirty shoes.

**MasterTop BC 308** is supplied in working packs which are pre-packaged in the exact ratio. Before mixing, precondition both PTA and PTB components to a temperature of approximately 18 to 24°C.

Pour the entire contents of PTB into the container of PTA. Do not mix by hand. Mix with a mechanical drill and paddle at a very low speed (ca. 300 rpm) for at least 2 minutes. Scrape the sides and the bottom of the container several times to ensure complete mixing. Keep the mixer blades submerged in the coating to avoid introducing air bubbles. Do not work out of the original container. After proper mixing to a homogeneous consistency pour the mixed PTA and PTB into a fresh container and mix for another minute. After mixing, **MasterTop BC 308** is applied to the prepared substrate, using a rubber tooth squeegee, notched trowel or scraper.

Important Notice: Before, during and after application the material should be stored, used and allowed to cure at a minimum 18°C! The material consumption should be between 2.2 -2.6 kg/m<sup>2</sup>

It may be spike rolled (if needed) using a metal spike roller with very thin metal spikes (0.4 mm). Allow to cure and prepare the next step.

**NOTE:** Immediately after application and during the first 60 – 90 minutes of the curing process your surface should look like a mirror and with a very smooth and shiny appearance.

Even so, after you will return to the site (usually the next day) it is possible to discover that the surface doesn't look exactly like when you have left the site.

**NOTE: Do not try to repair it!**

Because of internal stresses arising during the period in which **MasterTop BC 308** undergoes its chemical reaction between components, the surface may suffer plastic deformation and can gain the appearance of "fish eye formation".

Do not try to correct the appearance of the surface because it cannot be corrected using the same product or any different mechanical techniques. In the next step the surface will be covered with our **mat** and transparent **MasterTop TC 442W** and the final surface quality will change completely.

**2.5 Application of MasterTop TC 442W (clear)**

With the same specifications for general inspection as mentioned previously, apply the transparent topcoat **MasterTop TC 442W** on the hardened surface to complete the **MasterTop DAP system**.

**MasterTop TC 442W** is supplied in the correct proportions of PTA (resin) and PTB (hardener). Prior to mixing the temperature of the material must be between 15- 25°C. Pour PTB into the container of PTA and ensure that container PTB is emptied completely. To achieve a homogeneous mix, both components must be thoroughly mixed with a mixing device at about 300 rev/min. Ensure that the mixing device reaches side and bottom areas of the mixing vessel. Stir for at least 3 minutes or until the blend is homogeneous and streak free. Do not use the material out of container supplied but pour the mix into another container and remix for 1 minute.

**NOTE:** Only the applicators can walk freely on the area to be coated, and, of course, they should wear soft protective shoes to avoid damaging the bodycoat. A clean environment is required and dust, grease, oil, water or any other contaminating materials should be avoided as well as airflows during and after application.

As a matter of importance, when standing or walking on the body coat before and during the application process, you should not wear spiked shoes or use sharp edges which may deeply scratch and damage the body coat.

*NOTE: Like other water-based top coats, **MasterTop TC 442W** transparent will be applied and will comply with all directions given in "Water- based Topcoats application instructions\_2013".*

**NOTE: Before starting the application of the top coat make sure that you have downloaded and have available with you the latest edition of the guide mentioned above.**

Step 1: Application



Step 2: Allow it to cure

Step 3: The cured **MasterTop DAP** with **MasterTop TC 442W** transparent



Step 4: Cured **MasterTop DAP** matt decorative flooring system



### 3. SPECIAL TECHNIQUES / TIPS AND TRICKS.

If you want to add an increased abrasion resistance, especially in the entry areas or where a severe traffic is expected, then you can use the glass pearls/glass beads with a grit of 400 to 600 microns. They should be mixed together with **MasterTop BC 308** and, of course, after the both components have been mixed together. During the mixing process of these two components you can add about 20% glass pearls, mix them together with the product and then pour the mixture on the previously applied surface (**MasterTop BC 308**).

Make the application using a microfiber roller with a hair length of 11 mm at the consumption of 300 grams/sqm. Make sure that you respect the consumption and, please, mix the material from time to time in order to avoid the settlement of the glass pearls.

Be aware that the final surface will be glossy, explain this to your customer and try to integrate the shiny appearance into the matt decorative.

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#### STATEMENT OF RESPONSIBILITY

The technical information and application advice given in this Master Builders Solutions publication are based on the present state of our best scientific and practical knowledge. As the information herein is of a general nature, no assumption can be made as to a product's suitability for a particular use or application and no warranty as to its accuracy, reliability or completeness either expressed or implied is given other than those required by law. The user is responsible for checking the suitability of products for their intended use.

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#### NOTE

Field service where provided does not constitute supervisory responsibility. Suggestions made by Master Builders Solutions either orally or in writing may be followed, modified or rejected by the owner, engineer or contractor since they, and not Master Builders Solutions, are responsible for carrying out procedures appropriate to a specific application.

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Annex 1 - Graphic details for installing the decorative poster.

