

Application Guide for MasterTop[®] Fast Return to Service Topping

MasterTop[®] 1288

MasterTop 1288 is an epoxy based coloured seamless self-smoothing fast return to service flooring system.

- Areas subject to traffic, abrasion and chemical exposure
- When return to service is crucial for the running of the facility
- When access to the floor for continuing installations
- Where smooth or non-skid surfaces are required.

MasterTop 1288 is a versatile system that can be applied in many forms

- Rollcoat
- Rollcoat with non-skid broadcast
- 1mm coating
- 1mm coating with broadcast
- 1.5-2mm smooth topping
- 2-2.5mm broadcast non-skid topping

Packaging

Primer	
MasterTop P 688 Part A	10kg
MasterTop P 688 Part B	4kg
MasterTop P 688 mixed kit	14kg (13L)
Body coat	
MasterTop BC 388 Part A	10.5kg
MasterTop BC 388 Part B	3kg
X1 Colour Pack	0.6kg
MasterTop BC 388 plus X1 colour pack mixed	14.1kg (13.3L)
MasterTop Filler F1	15kg
MasterTop Filler F11	10kg
MasterTop Filler F5	25kg
MasterTop 1260 Part A	4L
MasterTop 1260 Part B	4L

Surface Preparation

It is recommended that a small trial area be undertaken at the start of the work for approval of surface finish.

The compressive strength of the substrate shall not be less than 25MPa. The concrete slab in contact with the ground must have a vapour barrier installed in compliance with DIN 18195 or equivalent, a surface profile of CSP 2-3 and direct tensile strength of 1.5Mpa.

The moisture content of the substrate shall not be higher than 8% throughout. The temperature of the substrate must be at least 3°C above the current dew point temperature.

Surfaces must be structurally sound, clean, and free from loose particles, oil, grease, and all other contaminants. Remove oil, grease, wax, cement laitance, loose particles, mold release agents, curing membranes and other contaminants. These must be removed from the surface by mechanical means like captive shot blasting or grinding followed by vacuum cleaning. A prior removal of oil and grease contaminants by using specialist detergents is necessary before any mechanical surface preparation on heavily oil contaminated substrates.

Surface irregularities such as blowholes, cracks, honeycombs, etc., should be repaired to provide a sound substrate for the **MasterTop P 688** primer to adhere to. Depending on the condition of the slab the following systems could be considered to create a suitable surface.

Re-profiling joint edges:

- Mix **MasterTop P 688** Part A and B until homogeneous and add **MasterTop F1 Filler** to create a suitable mortar.
- Prime the joint edges with neat **MasterTop P 688** and then apply the mortar to create a new joint edge profile.
- Allow to cure overnight before application of the floor.

Repairing blow holes and minor surface defects:

- Mix up the required quantity of **MasterEmaco N 5100** (see separate datasheet for details) and fill the holes and trowel flat.
- Prime larger holes with a slurry coat of the **MasterEmaco N 5100** to improve the bonding.

Filling trenches, cut outs etc:

- Mix up **MasterEmaco T 920** and fill the larger places as required and allow to cure for 7 days before application of the **MasterTop P 688** primer.

Coves

- Many installations require a cove and these should be installed prior to the priming of the floor.
- Mix **MasterEmaco 2525** Part A and B until homogeneous and add **MasterTop F1** or **F5 Filler** to create a suitable mortar.
- Prime the substrates with neat **MasterEmaco 2525** and then apply the mortar whilst still tacky.

Prior to applying the **MasterTop P 688** primer protect walls and columns against resin splashes using masking tape and plastic sheeting.

Priming

- Prime floor with **MasterTop P 688** at 5m² per litre.
- Prior to mixing the temperature of the products must be between 15–30°C.
- Pour Part B into the drum containing Part A and ensure that container B is emptied completely.
- To achieve a homogenous mix, both parts must be thoroughly mixed with a slow speed drill with a spiral mixer blade at about 300-900 rpm.
- Ensure that the mixing device reaches side and bottom areas of the mixing vessel.
- Stir for 2 minutes or until homogeneous then scrape down the sides of the drum and mix for another minute to achieve uniformity.

Placing

- After mixing, **MasterTop P 688** is applied to the pre-treated substrate, using a notched squeegee, trowel or roller.
- Apply at a rate of 5m² per litre of **MasterTop P 688** and backroll the applied primer at right angles to ensure complete coverage.
- Allow to cure for at least 4 hours or until just tacky before proceeding with the next coat.
- If it is expected that placing of the **MasterTop BC 388** will not take place within the recoat interval the application of 1-2kg per m² of **MasterTop F1 Filler** to give an additional surface key is recommended.
- Given the fast cure rate of the MasterTop P 688 the **MasterTop BC 388** should be applied within 2-6 hours of application at 20°C.
- Low temperatures will slow the chemical reaction down and this lengthens the pot life and the intercoating window.

- To fully cure the product the substrate temperature must not fall below 5° C for 24 hours after application.
- Waiting times between **MasterTop P 688** and **MasterTop BC 388** should not be less than 3 hours and not more than 12 hours at 20°C
- A porous concrete surface will require 2 coats, which is always recommended to achieve a first class finished floor surface. The second primer coat will be necessary if the primed surface is patchy (matt and gloss areas), there are pin holes in the primer layer or if the first primer layer has been left to cure for more than 48 hours.
- The priming step can be eliminated for a non-skid 2 - 2.5 mm **MasterTop 1288** floor.

Mixing

- As far as possible all **MasterTop X1** Colour Packs should be the same batch number to minimise risk of colour variation.
- All mixing should be done using a slow speed drill (300-900rpm.) and a spiral mixing paddle.
- Premix **MasterTop BC 388** Part A, add the **MasterTop X1** colour pack taking care to get all the colour out, and thoroughly mix to ensure the pigment is uniformly dispersed.
- Add the **MasterTop BC 388** Part B and continue to mix, slowly add the **MasterTop F1** or **F11** filler and mix for a further 3 minutes, occasionally scraping the side and bottom corner of container.
- Ensure the final mix is lump free, homogeneous and even in colour. Mixing of large mixes (multiples of the above kits) may be done in a forced action mixer.
- Ensure application is a continuous operation and laying is within 10 minutes of mixing and spike rolled within 5 minutes of laying.
- The mixed material will have a pot life of approximately 30 minutes at 20°C.

Application

Rollcoat (glossy smooth surface suitable for dry foot traffic and occasional machinery access)

MasterTop BC 388 Part A	10.5kgg	
MasterTop BC 388 Part B	3kg	
MasterTop X1 colour pack	0.6kg	
Volume		9.65L

- Substrate must be primed with **MasterTop P 688** to ensure that the pores are filled so no pin holes will appear in the finished floor. See priming section regarding necessity for second primer coat
- All mixing should be done using a slow speed drill (300-900rpm.) and a spiral mixing paddle.
- Premix **MasterTop BC 388** Part A, add the **MasterTop X1** colour pack taking care to get all the colour out, and thoroughly mix to ensure the pigment is uniformly dispersed.
- Add the **MasterTop BC 388** Part B and continue to mix until homogeneous and for at least 3 minutes.
- Dispense into a roller tray and apply using a short knapped roller.
- Roll first in one direction and then at right angles to give an even coverage.
- Apply at a wet film thickness of 150-200 microns checking with a wet film thickness gauge at various intervals.
- Allow to cure until tack free and apply a second coat of 150-200 microns and again roll in two directions.
- Allow to cure for 24 hours before returning to service.

Application

Rollcoat non-skid (satin non-skid surface suitable for foot traffic and occasional machinery access)

MasterTop BC 388 Part A	10.5kg	
MasterTop BC 388 Part B	3kg	
MasterTop X1 colour pack	0.6kg	
MasterTop F1 Filler	15kg	~1-2kg/m ²
MasterTop F3 Filler (plastic)	4kg	~10-15 gram per mixed litre MasterTop BC 388
Volume		9.65L

Non-skid achieved by use of MasterTop F1 Filler

- Substrate must be primed with **MasterTop P 688** to ensure that the pores are filled so no pin holes will appear in the finished floor. See priming section regarding necessity for second primer coat.
- All mixing should be done using a slow speed drill (300-900rpm.) and a spiral mixing paddle.
- Premix **MasterTop BC 388** Part A, add the **MasterTop X1** colour pack taking care to get all the colour out, and thoroughly mix to ensure the pigment is uniformly dispersed.
- Add the **MasterTop BC 388** Part B and continue to mix until homogeneous and for at least 3 minutes.
- Dispense into a roller tray and apply using a short knapped roller. Roll first in one direction and then at right angles to give an even coverage.
- Apply at a wet film thickness of 150-200 microns checking with a wet film thickness gauge at various intervals
- Lightly broadcast the **MasterTop F1 Filler** evenly over the surface at a rate between 1 and 2 kg per m².
- Allow to cure until tack free and vacuum off any loose sand then apply a second sealer coat (**MasterTop BC 388**, **MasterTop F11** and colour) of 150-200 microns and again roll in two directions.
- Allow to cure for 24 hours before returning to service.

Non-skid achieved by use of MasterTop Filler F3

- Substrate must be primed with **MasterTop P 688** to ensure that the pores are filled so no pin holes will appear in the finished floor.
- All mixing should be done using a slow speed drill (300-900rpm.) and a spiral mixing paddle.
- Premix **MasterTop BC 388** Part A, add the **MasterTop X1** colour pack taking care to get all the colour out, and thoroughly mix to ensure the pigment is uniformly dispersed.
- Add the **MasterTop BC 388** Part B and continue to mix until homogeneous and for at least 3 minutes.
- Dispense into a roller tray and apply using a short knapped roller.
- Roll first in one direction and then at right angles to give an even coverage.
- Apply at a wet film thickness of 150-200 microns checking with a wet film thickness gauge at various intervals
- Allow to cure until tack free.
- For the second coat premix **MasterTop BC 388** Part A, add the **MasterTop X1** colour pack taking care to get all the colour out, and thoroughly mix to ensure the pigment is uniformly dispersed.
- Add between 10 and 15 grams of the **MasterTop F3 Filler** for each litre of total mixed material and mechanically disperse.
- Add the **MasterTop BC 388** Part B and continue to mix until homogeneous and for at least 3 minutes and apply a second coat of 150-200 microns and again roll in two directions.
- Allow to cure for 24 hours before returning to service.

Application
1mm coating (light to moderate traffic)

MasterTop BC 388 part A	10.5kg	
MasterTop BC 388 part B	3kg	
MasterTop X1 colour pack	0.6kg	
MasterTop F11 Filler	10kg	5-10kg per kit
MasterTop F5 Filler	25kg	3-5kg/m ²
Volume		9.65L

- Substrate must be primed with **MasterTop P 688** to ensure that the pores are filled so no pin holes will appear in the finished floor. See priming section regarding necessity for second primer coat
- All mixing should be done using a slow speed drill (300-900rpm.) and a spiral mixing paddle.
- Premix **MasterTop BC 388** Part A, add the **MasterTop X1** colour pack taking care to get all the colour out, and thoroughly mix to ensure the pigment is uniformly dispersed.
- Add the **MasterTop BC 388** Part B and continue to mix until homogeneous and for at least 3 minutes. Add between 5 and 10 kg **MasterTop F11 Filler** depending on the consistency required and mix for a further two minutes.
- Dispense onto the surface and spread with a flat trowel or notched trowel to wet film thickness of 1mm.
- Spike roller to even out the **MasterTop BC 388** and remove entrapped air and allow to cure for 24 hours before returning to service.

Application

1mm coating with non-skid (light to moderate traffic)

MasterTop BC 388 part A	10.5kg	
MasterTop BC 388 part B	3kg	
MasterTop X1 colour pack	0.6kg	
MasterTop F11 filler	10kg	5-10kg per kit
MasterTop F5 filler	25kg	3-5kg/m ²
Volume		12.15-14.65L
MasterTop BC 388 part A	10.5kg	
MasterTop F11 filler	5kg	
MasterTop BC 388 part B	3kg	
MasterTop X1 colour pack	0.6kg	
		12.15L (~30m ² per kit)

- Substrate may be primed with **MasterTop P 688** to ensure that the pores are filled so no pin holes will appear in the finished floor. See priming section regarding necessity for second primer coat
- All mixing should be done using a slow speed drill (300-900rpm.) and a spiral mixing paddle.
- Premix **MasterTop BC 388** Part A, add the **MasterTop X1** colour pack taking care to get all the colour out, and thoroughly mix to ensure the pigment is uniformly dispersed.
- Add the **MasterTop BC 388** Part B and continue to mix until homogeneous and for at least 3 minutes.
- Add between 5 and 10kg **MasterTop F11 Filler** depending on the consistency required. And mix for a further 2 minutes
- Dispense onto the surface and spread with a flat trowel or notched trowel to wet film thickness of 0.8mm.
- Spike roller to even out the surface and apply between 3 and 5 kg of **MasterTop F5 Filler** evenly to refusal on the surface.
- Allow to cure until tack free and vacuum off any loose sand then apply a second sealer coat of 150 - 200 microns of **MasterTop BC 388**, **MasterTop F 11 Filler** and colour and roll in two directions. Allow to cure for 24 hours before returning to service.

Application

1.5-2mm smooth topping (heavy duty topping)

MasterTop BC 388 Part A	10.5kg	
MasterTop BC 388 Part B	3kg	
MasterTop X1 colour pack	0.6kg	
MasterTop F1 Filler (sand)	15kg	4.2 - 8.4kg per kit (2.5-5L)
MasterTop F11 Filler	10kg	4.2 - 6.3kg per kit (2.5-3.75L)
Volume		12.15 - 14.65L

The choice between the MasterTop F1 and F11 fillers depends on a number of factors. Firstly, the need for final floor flatness, secondly the aesthetics of the final surface and thirdly final use of the floor. MasterTop F11 filler should be used for those floors needing perfect flatness like high bay warehouses and television studios and those floors needing high aesthetics such as shops, showrooms etc. Most other applications the more economical MasterTop F1 filler is more than adequate and will still give an excellent surface.

MasterTop F1 Filler (most applications)

- Substrate must be primed with **MasterTop P 688** to ensure that the pores are filled so no pin holes will appear in the finished floor. See priming section regarding necessity for second primer coat
- All mixing should be done using a slow speed drill (300-900rpm.) and a spiral mixing paddle.
- Premix **MasterTop BC 388 Part A**, add the **MasterTop X1** colour pack taking care to get all the colour out, and thoroughly mix to ensure the pigment is uniformly dispersed.
- Add the **MasterTop BC 388 Part B** and continue to mix until homogeneous and for at least 3 minutes.
- Add between 4.2 and 8.4kg **MasterTop F1 Filler** depending on the consistency required and mix for a further two minutes.
- Dispense onto the surface and spread with a flat trowel or notched trowel to wet film thickness of 1.5 - 2mm.
- Spike roller to even out the **MasterTop BC 388** and allow to cure for 24 hours before returning to service.

MasterTop F11 filler (Super flat floors and high aesthetics)

- Substrate must be double primed with MasterTop P 688 to ensure that the pores are filled so no pin holes will appear in the finished floor. See priming section regarding necessity for second primer coat
- All mixing should be done using a slow speed drill (300-900rpm.) and a spiral mixing paddle.
- Premix **MasterTop BC 388 Part A**, add the **MasterTop X1** colour pack taking care to get all the colour out, and thoroughly mix to ensure the pigment is uniformly dispersed.
- Add the **MasterTop BC 388 Part B** and continue to mix until homogeneous and for at least 3 minutes.
- Add between 4.2 and 6.3kg **MasterTop F11 Filler** depending on the consistency required and mix for a further two minutes.
- Dispense onto the surface and spread with a flat trowel or notched trowel to wet film thickness of 1.5 - 2mm.
- Spike roller to even out the **MasterTop BC 388** and allow to cure for 24 hours before returning to service.

Application

2 - 2.5 mm non-skid surface

MasterTop BC 388 Part A	10.5kg	
MasterTop BC 388 Part B	3kg	
MasterTop X1 colour pack	0.6kg	
MasterTop F1 Filler	15kg	10 - 15kg per kit (5-7.5L)
MasterTop F5 Filler	25kg	3 – 5kg per m ²
Volume		14.65 - 17.15L
MasterTop BC 388 Part A	10.5kg	
MasterTop BC 388 Part B	3kg	
MasterTop F11 Filler	5kg	
MasterTop X1 colour pack	0.6kg	
	12.15L	~30m ² per kit
MasterTop 1260 Part A	4L	
MasterTop 1260 Part B	4L	
		~23 m ² per kit

- Generally, no primer is necessary with this system but a prime coat of **MasterTop P 688** should be considered for very porous or absorbent substrates
- All mixing should be done using a slow speed drill (300-900rpm.) and a spiral mixing paddle.
- Premix **MasterTop BC 388** Part A, add the **MasterTop X1** colour pack taking care to get all the colour out, and thoroughly mix to ensure the pigment is uniformly dispersed.
- Add the **MasterTop BC 388** Part B and continue to mix until homogeneous and for at least 3 minutes.
- Add between 10 and 15 kg **MasterTop F1 Filler** depending on the consistency required and mix for a further two minutes.
- Dispense onto the surface and spread with a flat trowel or notched trowel to wet film thickness of 1.5 - 2mm.
- Spike roller to even out the surface and apply between 3 and 5 kg of **MasterTop F5 Filler** evenly to refusal on the surface.
- Spike roller to even out the **MasterTop BC 388** and allow to cure until tack free and vacuum off any loose sand then apply a sealer coat of 150 - 200 microns of **MasterTop BC 388**, **MasterTop F11 Filler** and colour and roll in two directions.
- Allow to cure for 24 hours before returning to service.
- An alternate topcoat of **MasterTop 1260** can be used as a substitute for the sealer coat of the **MasterTop BC 388** and colour pack.
- Mix the two components (this material is pre-coloured) until homogeneous about 2 minutes and apply with short knapped roller, rolling in two directions to get an even coating.
- Allow to cure for 6 hours before returning to service.

Filler loadings

- **MasterTop 1288** in the 1mm smooth, 1mm non-skid the 1.5-2mm smooth and 2-2.5mm non-skid versions allow for a range of filler loadings to be used.
- The level of filler can be altered to make application of the **MasterTop BC 388** easier especially in cold weather and can be increased to cope with falls etc.
- However especially for the 1mm smooth and the 1.5 - 2mm smooth do not change the filler level during the floor installation as the filler loading can influence both the floor colour and the texture.

Curing

The **MasterTop 1288** does not need to be cured and should be protected from contact with silicone based lubricants and water during the first 24 hours.



Figure 1 - Prepared floor after shotblasting.



Figure 2 - Vacuuming up the dust after shotblasting.



Figure 3 - Prepared cove before application of primer.



Figure 4 - Priming the floor.



Figure 5 - Primed floor before the application of the bodycoat.



Figure 6 - Applying the body coat by trowel



Figure 7 - Applying the body coat by pin rake or notched trowel



Figure 8 - Cove coated before the application of body coat



Figure 9 - Spike rolling the applied body coat



Figure 11 – Non-skid texture of a 2-2.5mm MasterTop 1288 floor



Figure 12 - Smooth 1.5-2mm 1288 floor.

Caution

For information on personnel protective equipment, first aid and emergency procedures, and water disposal methods, refer to the product bag or Safety Data

STATEMENT OF RESPONSIBILITY

The technical information and application advice given in this BASF 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.

NOTE

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

BASF Australia Ltd
 ABN 62008437867
 Level 12
 28 Freshwater Place
 Southbank VIC 3006

Freecall: 1300 227 300
www.master-builders-solutions.basf.com.au

BASF New Zealand Ltd
 Level 4, 4 Leonard Isitt Drive
 Auckland Airport 2022
 Auckland, New Zealand

Freecall: 0800 334 877
www.master-builders-solutions.basf.co.nz

BASF Emergency Advice:
 1800 803 440 within Australia (24hr)
 0800 944 955 within New Zealand