

Method Statement

MasterTop[®] XTC

MasterTop BC 920 is a four-component, odorless high performance & durable self-smoothing flooring system based on Xolutec technology. It provides a seamless surface resistant to abrasion & impact and easy to clean. Being moisture tolerant can be applied on 14-day old concrete floors. **MasterTop BC 920** is used as a scratch primer & body coat in **MasterTop XTC** system

Xolutec[™]
A new dimension in versatility & durability

Xolutec[™] is the result of several years development work to take a step forward from the current PU and PUA materials, in order to solve the problems of concrete and steel in challenging technical environments such as wastewater treatment plants and industrial flooring solutions.

A wide variety of solutions can be designed with **Xolutec[™]** to achieve unique characteristics. These can provide seemingly contradictory properties, such as attractive aesthetics with excellent abrasion resistance or chemical resistance combined with effective crack bridging. The main customer benefit is reduced life cycle costs through longer maintenance cycles and reduced downtime. This is our understanding of durable construction.

RECOMMENDED USES

MasterTop BC 920 is recommended for new floors
 1. floors needing refurbishment, where protection from mechanical abuse is required.

MasterTop BC 920 is used to provide a hard wearing, abrasion resistant and easy to clean surface.

Application areas include:

1. Automotive Production and assembly lines
2. Pharmaceutical Plants
3. Heavy Engineering workshops
4. Aircraft Maintenance and assembly
5. Industrial & Warehousing floors
6. Laboratories

- ✓ **Odorless** – Environment friendly & comfortable application
- ✓ **Scratch resistance** – Longer retention of surface appearance.
- 1. **Fast curing at low temperature** – Reduced waiting times even at low temperatures
- 2. **Impact Resistance** – Longer life even under aggressive mechanical abuse
- 3. **High Early Strength** – Fast return to service; Open to Light vehicular traffic in 24 hrs.
- 4. **Moisture Tolerant** – Faster application; Can be applied on 14-day old concrete
- 5. **Chemical resistance** – Unaffected by chemical spillages

PERFORMANCE DATA

Compressive Strength (EN ISO 604)	30 MPa @ 1D 45 MPa @ 7D
Flexural Strength (EN ISO 178)	15 MPa @ 7D
Tensile Strength (ISO 527)	12 MPa @ 7D
Pull off Bond Strength (ASTM D4541)	>1.5 MPa @ 7D (Concrete Failure)
Shore D Hardness	70 @ 1D
Abrasion Resistance (EN ISO 7784) 1Kg / 1000rev./ CS17	65mg (Loss in Mass)
Impact Resistance (EN ISO 7765)	30 Joules
Hardness (EN ISO 15184)	4H
Light Vehicular Traffic	1 day at 20°C
Chemical Resistance* Hydrochloric Acid, 20% Solution Sulphuric Acid, 50% Solution Acetic Acid, 36% Solution Phosphoric Acid, 20% Solution Sodium Hydroxide 50% Solution Methyl Ethyl Ketone Methanol Xylene 2. Higher concentration of mineral acids may cause matting of the surface and color changes.	

PROPERTIES

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Mixed density (Kg / L)	1.55 ~1.60@ 20°C	
Pot life	Appox.15Min@ 20°C	
Overcoating Time @ 20°C	Min	Max
	Primer	8 Hrs

MasterTop BC 920 is extremely tolerant to residual substrate moisture and can be installed directly onto 14-day old concrete, or onto old good quality concretes with high moisture contents without the use of special primers, provided there is a functioning DPM within the structure.

This enables rapid construction programs to be maintained and facilitates refurbishment work in wet process areas.

Impact Resistance

With high mechanical strengths and a low elastic modulus, **MasterTop BC 920** is very resilient and able to withstand severe impact loads. While no material is indestructible and surface chipping may occur, brittle modes of failure resulting in cracking and debonding can be avoided.

Colors

MasterTop BC 920 is supplied in seven standard colors.

Grey	Light Grey	Cream
Green	Light Green	Red
Yellow		

APPLICATION

Temperature Requirements

Substrate temperatures: 10°C – 30°C

Material temperatures: 10°C – 25°C

Very low or very hot temperatures will make application more difficult and careful consideration should be given to storage of materials. In the cold weather conditions, pre-condition materials by keeping it in a heated room. In hot weather conditions, some form of air-conditioned storage is required. Pre-conditioned materials at 18-25°C will reduce the possibilities of flash/slow setting and other defects.

Substrate Quality

Concrete substrates should be visibly dry and have a minimum tensile strength of 1.5 MPa. The minimum compressive strength of the concrete floor shall be 25 MPa at 28 days. All joints in the substrate concrete subject to movement should be reflected through the MasterTop floor and sealed with a suitable sealant

For information about application, please obtain a copy of the MASTER BUILDERS SOLUTIONS Application Guide from your local representative.

Surface preparation

Substrate concrete must be sound, free of dust, dirt, grease, paint, plaster or other debris. Damaged areas must be repaired. Honeycombing or small cavities may be repaired using suitable cementitious repair mortars.

The method of surface preparation will be dictated by the size of area to be treated, location and degree of contamination.

New construction

Floors to be coated or overlaid should be at least 14 days old. The removal of laitance and contaminants is best achieved by mechanical means such as vacuum recovery shot blasting. Mechanical means of preparation are preferred followed by the removal of dust and other loose debris using an industrial vacuum.

Mixing

MasterTop BC 920 is supplied in four components; Part A, B, C & D with Part D being color component. The typical mixing steps are as follows:

1. Mix Part A with high speed electric drill for 1 to 2 minutes until material becomes fully

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homogeneous. Ensure no material is settled at the bottom of the pail.

2. Empty Part B in a separate clean mixing bucket. Whilst mixing with high speed electric drill Add mixed Part A and Part D.
3. Mix for 1 minute making sure to reach the bottom and sides of the can. Continue mixing for 1 minute to produce a fully blended, uniform material without color streaks.
4. Gradually Add Part C whilst mixing continues; Mix until the filler is uniformly dispersed, and the mix is uniform, typically 1½ - 2 minutes.
5. It is important to maintain constant mixing times throughout to ensure consistent color and to avoid introducing excessive air into the system.

Scratch Primer

MasterTop BC 920 shall be applied to a cured scratch coat of **MasterTop BC 920** of 0.5mm nominal thickness at a consumption rate of 0.8 – 1.0 kg/m².

For Scratch Primer applications Add 1½ to 2 Packs of Part C to 1 Pack of Parts A, B & D. It is important to note that all four components shall be used for scratch coat with the same mixing procedure as mentioned above.

The scratch coat is applied to the prepared substrate using a Steel trowel, Pin rake trowel or Squeegee. The scratch coat shall be allowed to dry completely to achieve a tack free surface before overcoating with **MasterTop BC 920**.

Before progressing further, ensure that substrate is fully sealed with scratch coat primer and if required apply another coat of scratch primer to ensure complete sealing of substrate.

Sealed substrate is very important to ensure the performance of **MasterTop XTC** as a system

Please take note of the overcoating times for scratch coat before applying the Bodycoat.

Bodycoat

Spread the mixed material over the dry scratch coat at a consumption of 2.7 to 3.0 Kgs/m² using pin rake trowel or steel trowel. The pins of the pin rake adjusted to appropriate depth. Use steel trowel for edge work. Use a spiked roller to produce smooth even finish. The whole floor should spike rolled twice. On the first pass the spike roller should be pushed right through the material to substrate to assist the flow, remove pin rake marks and to flatten the floor. Subsequent passes with the roller held lightly just upon the surface to bring the resin up to the surface and improve aesthetics.

ESTIMATING DATA

shall be strictly adhered to achieve designed performance properties.

Layer	Consumption
Scratch Coat	0.8 ~ 1.0 kg /m ²
Body Coat	2.7 ~ 3.0 kg /m ²

PACKAGING

MasterTop BC 920 consists of four components.

Part A	3.5 Kg
Part B	5.25 Kg
Part C	4 Kg
Part D	0.5 Kg

MasterTop BC 920 has a shelf life of 12 months. Store out of direct sunlight, clear of the ground on pallets protected from rainfall.

PRECAUTIONS

For the full health and safety hazard information and how to safely handle and use this product, please make sure that you obtain a copy of the MASTER BUILDERS SOLUTIONS Material Safety Data Sheet (MSDS) from our office or our website.

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STATEMENT OF RESPONSIBILITY

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