

# MasterTop<sup>®</sup> BC 354

**2K-PU binder for indoor and outdoor use, non-solvented, low emission and UV resistant**

## DESCRIPTION

**MasterTop BC 354** is a non-solvented, low emission, UV-resistant, unfilled, 2K polyurethane floor binder for indoor and outdoor applications with suitable decorative aggregates.

## TYPICAL APPLICATIONS

**MasterTop BC 354** can be used as a binder for stone carpet systems and decorative colour quartz floors. It provides high gloss appearance.

## ADVANTAGES

- Low viscosity
- Low odour
- Easy to apply
- Excellent mechanical properties
- No yellowing under UV lights
- High chemical resistance

## PACKAGING

**MasterTop BC 354** is clear when cured and supplied in 12 kg working packs.

## TYPICAL PROPERTIES\*

Mix ratio (Part A : Part B)	60:40
Mixed density at 25°C	approx. 1.05 – 1.15 kg/L
Pot life at 25°C	120 min
Re-coating interval	12 h – 24 h
Ready for traffic	48 h
Fully cured/ready for exposure to chemicals	7 days
Substrate and application temperatures	+10 - +40°C
Max. permissible relative humidity	80%
Elongation at break (pure binder) ASTM D412	≥20%
Tensile strength ASTM D412	≥15.0 MPa
Shore-A hardness after 28 days (pure binder) ASTM D2240	≥70
Volatile Organic Content	<100 g/L

\*The above figures are intended as a guide only and should not be used as a basis for specifications.

## SUBSTRATE PRETREATMENT

**MasterTop BC 354** must be applied to primed substrates. Substrates to be coated have to be firm, dry and load bearing, free of loose and brittle particles and substances, which impair adhesion such as oil, grease, rubber skid mark paint or other contaminants. As a rule, pre-treatment of the substrate by grit or shot blasting, grinding or scarifying (including the necessary post-treatment) is mandatory.

After pre-treatment of the substrate, the bond strength of the substrate must be at least 1.5 N/mm<sup>2</sup> (check with an approved pull-off tester). The moisture content of the concrete should not be higher than 3% throughout (check with electronic moisture meter). The temperature of the substrate must be at least 3°C above the current dew point temperature. In addition, the guidelines relevant to the requirements for coating concrete substrates must be observed. A suitable damp proof coating (exterior only) has to be installed and must be intact.

## APPLICATION GUIDELINES

**MasterTop BC 354** is supplied in working packs which are pre-packaged in the exact ratio. Before mixing, precondition both Part A and Part B components to a temperature of approximately 15 to 25°C. Pour the entire contents of Part B into the container of Part A. **DO NOT MIX BY HAND.** Mix with a heavy-duty hand-held mixer and suitable paddle (Collomix DLX) 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 head 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 Part A and Part B into a fresh container and mix for another minute. Coloured or oven dried silica sand (or other fillers) are added to the pre-mixed binder under constant mixing. Ensure thorough wetting of the filler. The mortar mix is spread over the substrate with a trowel then is levelled using template strips and finally levelled and compacted with a trowel or power float.

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The mortar should be applied at constant or falling temperatures in order to minimise the risk of blister formation due to the expansion of air entrapped in the pores of the substrate.

The workability of reactive resins is influenced by the ambient and substrate temperature. At low temperatures the chemical reactions are slowed down; this lengthens the pot-life, re-coating interval and open time. At the same time the viscosity increases which leads to a higher consumption.

High temperature accelerates chemical reactions so that the time frames mentioned above are shortened accordingly. To fully cure the material, the substrate and working temperature must not fall below the minimum.

Following application, the material should be protected from direct contact with water for approx. 24 hours (at approx. 20°C). Within this period, contact with water causes a surface bloom and/or surface tackiness that inhibits interlayer adhesion and must be removed. Apart from these limitations, the respective guidelines for this use of reactive resins in the concrete trade apply.

## CLEANING

Re-usable tools must be cleaned carefully with a suitable thinner (Xylene / MEK / Acetone).

## CONSUMPTION

For use as stone carpet binder, the quantity of **MasterTop BC 354** to be used depends on the particle size of the **MasterTop F 585** or **MasterTop F11** aggregates, (between 6 and 10% by weight).

Aggregates size	Ratio binder/aggregates	MasterTop BC 354
1.5 - 2.2 mm	1:10	10%
2.0 - 3.2 mm	1:12	8%
3.0 - 5.6 mm	1:15 to 1:17	6%

Aggregates size	Minimum thickness	Mix (kg/m <sup>2</sup> )
1.5 - 2.2 mm	>5mm	~10kg
2.0 - 3.2 mm	>8mm	~16kg
3.0 - 5.6 mm	>12mm	~24kg

The above tables are provided as a guideline only and should be verified by site trials.

## STORAGE AND SHELF LIFE

Store in original drums, under dry conditions and a temperature ranging from 15-25°C in shaded areas. Do not expose to direct sunlight and keep the temperature within the above-mentioned range. Under these conditions the material has a shelf life of 12 months.

## HEALTH AND SAFETY

As with all chemical products, care should be taken, during use and storage, to avoid contact with eyes, mouth, skin and foodstuffs (which can also be tainted with vapour until product has fully cured or dried). Treat splashes to eyes and skin immediately. If accidentally ingested, seek medical attention. Reseal containers after use.

## QUALITY AND CARE

All products originating from Master Builders Solutions Dubai, UAE facility are manufactured under a management system independently certified to conform to the requirements of the quality, environmental and occupational health & safety standards ISO 9001 and ISO 14001.

\* Properties listed are based on laboratory controlled tests.

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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.

## NOTE

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