

MASTERTOP[®] BC 375 AS

Anti-static, self smoothing flooring system

DESCRIPTION

Mastertop BC 375 AS is a self-smoothing, anti static, solvent free polyurethane flooring system. The cured floor exhibits excellent anti static properties and finishes to a smooth, seamless surface with an attractive appearance that can be easily maintained in a hygienic condition. Due to the polyurethane base, the system exhibits an enhanced abrasion and cracking resistance.

Mastertop BC 375 AS is in compliance with:

	Cert no. Norm	Institute	Classification	Remarks
FDA and FCH approval	P 896-E	DAR	passed	Federal Health Centre (Germany)
Adhesion under rising damp conditions. Non-slip	P 1588	DAR	No blisters M0/g0	Adhesion 3.1 N/mm

RECOMMENDED FOR

Mastertop BC 375 AS is recommended for floors in environments where static electricity and stray currents produced by friction, pose risks of explosion or interference with the function or the production of electronic parts. It is ideal for floors in:

- electronic industries
- wafer and PC component production
- synthetic fibre mills
- processing and handling of combustible goods
- operating theatres and recovery rooms

FEATURES AND BENEFITS

- **Anti-static – dissipates static charges that could cause sparks or damage electronic parts**
- **Good chemicals resistance – durable in chemically aggressive areas**
- **Easy to maintain – allows floor surface to be maintained in a hygienic state**
- **Seamless – is free of joins that collect dirt and allow ingress of pollutants**
- **Complies with all international standards – DIN 51953, DIN EN 1081, IEC and NFPA BS 2080 UL779**

TECHNICAL PERFORMANCE DATA

7 days cure @ 20°C

Compressive (DIN 1164)	: 50 N/mm ²
Flexural strength (DIN 1048)	: 28 N/mm ²
Bond strength (DIN ISO 4624)	: < 2.5 N/mm ²
Abrasion resistance (DIN 53754)	: 55mg
Elongation (DIN 53504)	: 10%
Shore D Hardness	: 70
Resistivity (DIN 51953, BS 2050, UL 779)	: >1x10 ⁴ to- <1x10 ⁶ Ω
Resistivity (Scandinavia)	: >1x10 ⁵ to- <1x10 ⁸ Ω
Resistivity (DIN 1081, NFPA, IEC)	: >1x10 ⁶ to <1x10 ⁹ Ω
Service Temperature	: -20°C to 60°C
Application Temperature	: Min. 10°C Max. 35°C

PROPERTIES

a. Components

	Supply form	Colour	Density kg
Concresive 2525 Part A	liquid	amber	1.10
Concresive 2525 Part B	liquid	amber	1.05
Mastertop BC 375 AS Part A	liquid	coloured	1.40*
Mastertop BC 375 AS Part B	liquid	amber	
Conipox 287 Part A	liquid	white	1.40*
Conipox 287 Part B	liquid	black	
Filler F5	solid	white	2.60

* Part A and Part B mixed

b. Mixed systems

	Components	Mix ratio by weight
Concresive 2525	A:B	100:27
Conipox 287	A:B	4:6
Mastertop BC 375 AS	A:B	4:1

Pot life (minutes)

	@ 10°C	@ 20°C	@ 30°C
Concresive 2525	70	35	20
Conipox 287	120	60	30
Mastertop BC 375 AS	60	30	20

Curing time (days)

	@ 10°C	@ 20°C	@ 30°C
Concresive 2525	5	2	1
Conipox 287	7	5	2
Mastertop BC 375 AS	10	5	2

Maximum permissible relative humidity

	@ 10°C	@ > 23°C
All components	75%	90%

APPLICATION

Surface Preparation

The compressive strength of the substrate shall not be less than 30 N/mm. The substrates in contact with the ground must have a vapour barrier installed in compliance with DIN 18195 or equivalent, or be primed with **Concresive 2525**. The moisture content of the substrate shall not be higher than 8% throughout (test using CM equipment). The temperature of the substrate must be at least 3°C above the current dew point temperature.



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Correct substrate preparation is critical for optimum performance. Surfaces must be structurally sound, clean and free from loose particles, oil, grease and all other contaminants.

Remove oil, grease and wax contaminants by scrubbing with industrial grade detergent or degreasing compounds followed by mechanical cleaning. Cement laitance, loose particles, mould release agents, curing membrane and other contaminants must be removed from the surface by shot blasting, Blastrac, scarifying or grit-blasting followed by vacuum cleaning. After pre-treatment of the substrate, the bond strength of the substrate must be at least 1.5N/mm² (check with an approved pull-off tester at load rate 100 N/s).

Fill surface irregularities such as blowholes, cracks, honeycombs, etc with an **EMACO** repair mortar to achieve a smooth and level surface.

Protect walls and columns against resin splashes using masking tape and polythene sheeting.

PRIMER

Mixing

Use a low speed (300rpm) electric drill fitted with a paint mixer or a wing type paddle.

Premix one unit of **Concresive 2525** Part A with one unit of **Concresive 2525** Part B for at least 3 minutes until the mix is uniform and free of streaks.

Placing

Immediately after mixing, pour the material onto the substrate and spread the mixed material using a squeegee or paint roller. The main purpose of this primer coat is to seal the substrate completely and avoiding air-bubbles in the body coat. On very porous substrates a second primer/sealer coat may be required. If in doubt apply a sample patch of body coat. Placing of the body coat onto unsanded surfaces outside the recoating interval will lead to interlayer failures (de-bonding).

Broadcasting of Filler

F5 filler is broadcast at the rate of 0.8 to 1.0 kg/m² onto the wet primer; do not sand in excess.

Do not sprinkle sand in the areas where the copper strips are placed.

CONDUCTIVE PRIMER

Mixing

Use a low speed (300rpm) electric drill fitted with a paint mixer or a wing type paddle.

Premix one unit of **Conipox 287** Part A with one unit of **Conipox 287** Part B for at least 3 minutes until the mix is uniform and free of streaks.

Placing

For placing please refer to relevant Product Data Sheets.

Note: If a resistivity of $>1 \times 10^9$ to $<1 \times 10^{10}$ is required (DIN 51953), use conductive primer Conipox 287.

For other standards, please consult the nearest BASF representative.

Copper Grounding Strips

When the primer has cured, self-adhesive copper strips 10 to 20mm wide and 300 to 400mm long are bonded to the primed surface. As a rule, one strip per 100m² of floor area complies with all norms. For large areas, it is prudent to place one or two strips longitudinal and parallel to the walls. The above mentioned strips are grounded near a column in the mid section of the floor. However, consult with the owner or consultant regarding possible special grounding requirements. The placed copper strips are subsequently connected to an approved ring conductor/bus bar which is connected to an approved ground pole. It is beyond the scope of the flooring material supplier to design, specify or install the grounding system, such work must be carried out and designed by a qualified electrician or in conjunction with the owner's safety or quality control officer.

BODY COAT

Mixing

Use a low speed (300rpm) electric drill fitted with a paint mixer or a wing type paddle.

Mix one unit of **Mastertop BC 375 AS** Part A with one unit **Mastertop BC 375 AS** Part B and mix for at least 3 minutes or until the mix is uniform in colour and free of streaks.

Placing

Depending on the substrate condition, apply 1.8 to 2.5 kg/m² of the mix, pour out the whole mix at once into pours being approximately 200 to 300mm wide running parallel to the work direction. Distribute and level the material with a notched trowel of the following teeth size, width / height / separation: 3/5/10mm. Allow the placed material to rest for 10 to 15 minutes, then de-aerate with a spike roller.

Following the application of the **Mastertop BC 375 AS**, protect coated area for a least 24 hours after laying from spillage, dust, insects, small animals, traffic, rain, moisture etc.



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ESTIMATING DATA

System	Product	kg/m ²	Thickness mm
Primer	Concresive 2525	0.4-0.6	0.3-0.4
Broadcast filler	Filler F5	0.8-1.0	0.3-0.4
Conductive primer	Conipox 287	0.2-0.25	0.1-0.15
Body coat	Mastertop BC 375 AS	1.8-2.5	1.5-2.0

PACKAGING

Mastertop BC 375 AS:	30.0kg/set
Concresive 2525:	30.0kg/set
Conipox 287:	15.0kg/set
Filler F5:	25.0kg/set

SHELF LIFE

Mastertop BC 375 AS can be kept for 12 months from date of manufacture if stored in original unopened packaging, in a dry enclosed place at temperatures between 15 to 35°C, without exposure to direct sunlight.

PRECAUTIONS

Mastertop BC 375 AS contains certain chemicals which can cause skin irritation if exposed and respiratory reaction if inhaled. Wear gloves, masks and use hand barrier cream while handling the product. Wash thoroughly after handling.

Should skin contact occur, wash immediately with soap and water or an effective hand cleaner.

In case of accidental eye contact, wash with a copious quantity of water and immediately seek medical advice.

If ingested, do not induce vomiting. Consult a doctor immediately.

Vapours of solvents used for cleaning can be irritating. It is therefore recommended that cleaning be done in well-ventilated areas.

For detailed Health, Safety and Environmental recommendations, please consult and follow all instruction on the product Material Safety Data Sheet.

Fire: Keep away from sources of ignition. Do not smoke whilst handling the product.

Flash point: 110°C.

All BASF Construction Chemicals Australia & New Zealand data sheets are updated on a regular basis, it is the user's responsibility to obtain the most recent issue **AMtop375AS/3/1206**

STATEMENT OF RESPONSIBILITY

The technical information and application advice given in this **BASF Construction Chemicals** 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 Construction Chemicals** either orally or in writing may be followed, modified or rejected by the owner, engineer or contractor since they, and not **BASF Construction Chemicals**, are responsible for carrying out procedures appropriate to a specific application.

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