

# MASTERTOP<sup>®</sup> 1240 PLUS HS

## Heavy duty abrasion resistant epoxy floor screed

### Description

MASTERTOP<sup>®</sup> 1240 PLUS HS is a multi component epoxy screed system designed to provide a heavy duty industrial floor topping. MASTERTOP 1240 PLUS HS possesses excellent compressive strength and abrasion resistance making it ideally suited for use in areas where high wear and volumes of traffic are anticipated. MASTERTOP 1240 PLUS HS is trowel applied and may be laid in thicknesses between 5 and 10mm. For thicknesses greater than 10mm please consult a BASF representative.

### Primary uses

MASTERTOP<sup>®</sup> 1240 PLUS HS is ideal for use in demanding environments such as engineering, automotive and aerospace industries. Typical installations include floors in logistics centers, mechanical workshops, industrial aisles, loading bays and ramps.

MASTERTOP<sup>®</sup> 1240 PLUS HS has good chemical resistance, but as in all corrosive situations a full analysis of operating and exposure conditions is required, followed by reference to chemical resistance data, to ensure product suitability.

### Advantages

- High compressive and tensile strength
- Abrasion resistant
- Slip resistant
- Zero V.O.C's
- Excellent wear and impact resistance

### Properties

#### \*Typical physical material

	25°C	40°C
Pot Life	40 mins	20 mins
Initial Cure Time	14 hours	10 hours
Compressive strength (ASTM C579-2001)		
7 days	105N/mm <sup>2</sup>	>115N/mm <sup>2</sup>
Flexural strength (ASTM C580-93)	35N/mm <sup>2</sup>	
Tensile strength (ASTM C307-94)	17N/mm <sup>2</sup>	
Density of mixed material	2.14kg/L	
*Abrasion resistance (ASTM C501-84)	1155mg/1000 cycles	
Bond strength	Greater than the cohesive strength of good quality concrete	
Impact resistance (ISO 6272) 1kg weight, 2 meter height	No cracks or disbonding	

### Chemical resistance

MASTERTOP 1240 PLUS HS is resistant to the following chemicals at 25°C

#### Acids

Acetic Acid 5%	Resistant
Hydrochloric Acid 18%	Resistant
Sulphuric Acid 20%	Resistant
Phosphoric Acid 20%	Resistant

#### Alkalis

Sodium Hydroxide 25%	Resistant
Ammonia 33%	Resistant
Saturated Sodium Chloride	Resistant
Saturated Sugar Solution	Resistant
Isopropyl alcohol	Resistant
Ethyl alcohol	Resistant



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## Staining and discolouration

Many chemicals will stain or discolour the floor without causing any deterioration or loss of properties.

## Maximum service temperature

MASTERTOP 1240 PLUS HS should not be used in areas subject to temperatures greater than 65°C

## Packaging

MASTERTOP<sup>®</sup> 1240 PLUS HS utilizes MASTERTOP 1240 PLUS PRIMER which is supplied in 2.8kg units.

MASTERTOP 1240 PLUS HS (Neutral) is supplied as a three component 27kg unit.

MASTERTOP 1240 PLUS HS (Pigmented) is supplied as a four component 27.4kg unit.

## Substrate requirements

The MASTERTOP 1240 PLUS HS system shall be applied to a concrete substrate which has a minimum compressive strength of 25N/mm<sup>2</sup>. MASTERTOP 1240 PLUS HS must be applied to a clean substrate free from dust, dirt and other contaminants. A clean, well prepared surface is required to ensure adhesion between the substrate and the system.

## Application procedure

### New Construction:

Floors to receive the MASTERTOP 1240 PLUS HS system shall be at least 28 days old unless water reducing admixtures have been incorporated. Consult BASF's Technical Service department for advice. The removal of laitance and contaminants is best achieved by mechanical means such as vacuum recovery shot blasting or scarifying. Do not apply primer until all laitance has been removed.

## Existing concrete:

All contamination must be removed and a sound, clean substrate exposed. Mechanical means of preparation are preferred followed by the removal of dust and other loose debris using an industrial vacuum.

In areas of deep penetrating contamination by oils, greases and fats, hot compressed air, followed by impregnation with a low viscosity sealer / primer is the recommended treatment.

Ensure that termination / anchor grooves are cut around all the floor leading edges, sumps, drain outlets etc. before the application of the MASTERTOP 1240 PLUS HS system.

Uneven concrete should be levelled to produce a roughened flat surface. Where repairs are required they can be carried out using MASTERTOP<sup>®</sup> 1240 PLUS HS filled out with additional aggregate, or if time allows, a suitable product from the EMACO range.

Expansion, control and isolation joints in concrete substrates should be carried through the MASTERTOP<sup>®</sup> 1240 PLUS HS floors and filled with a suitable sealant from the BASF range.

## Limitations

MASTERTOP 1240 PLUS HS is not recommended for use outdoors.

## Storage

Prior to application, MASTERTOP<sup>®</sup> 1240 PLUS HS system should be stored under cover in air-conditioning and protected from extremes of temperature which may cause inconsistent workability, finish and cure times of the mixed material.



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## **Priming:**

Prime with MASTERTOP® 1240 PLUS PRIMER. Mix the two components using a slow speed drill with a suitable paddle. Mix until uniform consistency is obtained. The components are preweighed and should not be split or divided. Apply by brush or roller and work well into the surface. Apply according to the stated coverage. Allow to stand for 20 minutes before applying the MASTERTOP® 1240 PLUS HS to check for absorption. If the surface becomes matt, showing absorption, re-prime the surface. Apply the MASTERTOP® 1240 PLUS HS whilst the primed surface is still tacky. If the primer hardens reprime within 24 hours.

## **Mixing:**

Mixing should be carried out using a forced action mixer such as a Creteangle or Mixal Mixer.

Add the base, reactor and colour pack to the mixer completely emptying the contents of the containers. Mix for 1 minute until a uniform colour is achieved. Slowly add the aggregate component and mix for a further 3 minutes until a uniform colour and consistency is achieved.

Mixing times should be varied according to temperature but typically 4 minutes in total is sufficient. It is important to maintain constant mixing times throughout the contract, to ensure consistent colour and to avoid introducing excessive air into the system.

MASTERTOP® 1240 PLUS HS system is supplied in pre-weighed packs which should not be split or divided. It is important to use complete packs.

During application in cold weather, correct conditioning is essential; application should be halted if the ambient or substrate temperature is likely to fall below 15°C. Consideration should be given to the substrate or base slab as it is likely to be considerably colder than the surrounding air temperatures. When temperatures exceed 35°C, working times will be reduced significantly.

For full details regarding application, please refer to the latest BASF method statement.

## **Sealing:**

When the floor is subjected to chemical or oil spillage or when hygiene is important, the finished surface must be sealed. Recommended BASF products include MASTERTOP 1120 T, and MASTERTOP 1110. For application details and other information, please refer to individual technical data sheets. For technical advice consult BASF's Technical Services Department.

Full chemical cure is essential for resin-based materials to ensure specified performance. A minimum temperature of 15°C should be maintained during the curing period by the use of additional heating, if necessary.

## **Coverage & Yield**

### **Primer**

MASTERTOP® 1240 PLUS Primer will cover approximately 14m<sup>2</sup> when applied at an application rate of 0.2kg/m<sup>2</sup> dependent upon porosity of the substrate.

### **Topping**

MASTERTOP® 1240 PLUS HS Neutral – 27kg unit will yield 12.6 liters and will cover approximately 1.26m<sup>2</sup> @ 10mm thickness.

# MASTERTOP<sup>®</sup> 1240 PLUS HS

MASTERTOP<sup>®</sup> 1240 PLUS HS with Colour Pack: 27.4kg will yield 12.80 liters and will cover approximately 1.28m<sup>2</sup> @ 10mm thickness.

## Equipment care

Remove uncured MASTERTOP<sup>®</sup> 1240 PLUS HS using SOLVENT NO. 2.

## Storage

Store out of direct sunlight, clear of the ground on pallets protected from rainfall. Avoid excessive compaction and protect from extremes of temperatures.

Failure to comply with the recommended storage conditions may result in premature deterioration of the product or packaging. For specific storage advice consult BASF's Technical Services Department.

## Safety precautions

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 is fully cured or dried). Treat splashes to eyes and skin immediately. If accidentally ingested, seek medical attention. Reseal containers after use.

## Note

Field service, where provided, does not constitute supervisory responsibility. For additional information contact your local BASF representative.

BASF reserves the right to have the true cause of any difficulty determined by accepted test methods.

## Quality and care

All products originating from BASF's 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, ISO 14001 and OHSAS 18001.

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\* Properties listed are based on laboratory controlled tests.

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