



The Chemical Company

# MASTERSEAL<sup>®</sup> 360 (MASTERSEAL 360TE)

Hydrophobic impregnant based on isobutyltriethoxysilane

## DESCRIPTION

**MASTERSEAL 360** is a low viscosity clear liquid based on a selected high purity undiluted isobutyltriethoxysilane. This class of silanes has a very low molecular size, which ensures effective impregnation of concrete and masonry surfaces through deep (3-8 mm) penetration into the pore structure. The impregnated **MASTERSEAL 360** reacts with moisture or interstitial humidity and forms permanently bonded hydrophobic lining on the pore-walls of the substrate.

The treated substrates are therefore highly hydrophobic and will inhibit ingress of water and water borne aggressive agents such as chlorides, while retaining the original appearance.

The substantial reduction in water absorption of the treated substrates also assists in the thermal insulation characteristics.

**MASTERSEAL 360** is also available with a red fugitive dye that provides an easy identification of the treated areas. The colour of the dye will disappear in approximately 1 week depending on the number of coats applied.

## FIELDS OF APPLICATION

**MASTERSEAL 360** is recommended for application to most of the cementitious, masonry and mineral substrates above ground, not subject to hydrostatic pressure. Applications include treating the surfaces of :

- bridge decks, abutments, piers, soffits, etc.
- beams, columns and walls of buildings
- exposed brick structures
- car parks
- marine structures

## FEATURES AND BENEFITS

<b>Effective water repellence</b>	Durability. Inhibits ingress of water borne aggressive agents such as chlorides.
<b>Minimises surface efflorescence</b>	Clean appearance of masonry surfaces.
<b>Breathable</b>	Allows excess water vapour to evaporate from the substrate.
<b>Highly penetrative</b>	Ensures long-term effectiveness even on surfaces exposed to traffic (e.g.: car parks).
<b>Can be supplied with a fugitive dye</b>	Treated area easily identifiable. No wasteful repetitive coatings or risk of untreated areas.

## TYPICAL PERFORMANCE DATA

Maximum depth of penetration can be achieved over a dry substrate on a dry, windless day with a high ambient temperature of around 40°C.

Temperature	Relative humidity	Depth of penetration
24°C	13 %	6 mm
	52 %	5 mm
	79 %	5 mm
40°C	13 %	6 mm
	52 %	5 mm
	79 %	5 mm

Note: Experience has shown that a depth of penetration of >3 mm gives the required long term protection to concrete.

**MASTERSEAL 360** complies with British Highway Specification BD 43/90.

## PROPERTIES

Supply form	: Clear liquid
Refractive index of material as supplied	: 1.400 <sup>±</sup> 0.005
Specific gravity	: 0.88
Purity (Isobutyltriethoxysilane)	: 98%
Active ingredients	: 100%

## APPLICATION

Use **MASTERSEAL 360** as supplied without dilution.

### Surface Preparation

Correct substrate preparation is critical for optimum performance.

Surfaces should clean and free from loose particles, oil, grease or any other contaminant. Cement laitance, loose particles, oil, grease, mould release agent, curing membrane and other contaminants must be removed by high pressure water jetting or other such effective methods.

Mask and protect all areas not to be treated including glass, plants, etc., and any other material that should not be exposed to solvents.

A test application is recommended on each surface or masonry material to be treated to ensure compatibility and desired water repellent effect.

BASF Construction Chemicals offices in ASEAN

Singapore Tel : +65-6861-6766 Fax : +65-6861-3186	Malaysia Tel : +60-3-5628-3888 Fax : +60-3-5628-3776	Indonesia Tel : +62-21-526-2481 Fax : +62-21-526-2541	Thailand Tel : +66-2204-9427 Fax : +66-2664-9267	Vietnam Tel : +84-650-3743-100 Fax : +84-650-3743-200	Philippines Tel : +63-2-889-4321 Fax : +63-2-889-4361
---	--	---	--	---	---



The Chemical Company

# MASTERSEAL<sup>®</sup> 360 (MASTERSEAL 360TE)

## Placing

**MASTERSEAL 360** may be applied to damp surfaces although dry surfaces preferred for optimum penetration of the substrate. Apply **MASTERSEAL 360** in two coats with about two hours interval between coats.

Avoid application on a windy or a rainy day and start after at least a couple of hours of clear sunshine following rains. For best results on vertical surfaces, starting at the bottom of the structure and working up, apply a flood coat of **MASTERSEAL 360** by a low pressure air-less spray equipment (knapsack sprayer), so as to produce 150-200 mm run off on the surface below the contact point of the spray pattern.

It can also be applied using a wide short nap roller or brush, in which case, it should be applied repeatedly until the surface remains moist for a few seconds.

On horizontal surfaces, apply sufficient material so that it stands for a few seconds before penetration.

## EQUIPMENT

Low pressure sprayer, short nap wide roller or brush. Spraying equipment should ideally be fitted with solvent resistant hoses and gaskets.

## CLEANING

Clean the tools and equipment using a suitable solvent such as mineral turpentine.

## ESTIMATING DATA

150 - 300 ml/m<sup>2</sup> (0.13 - 0.26 kg/m<sup>2</sup>) per coat depending on porosity of the substrate. Consumption can increase while treating tall structures, caused by loss due to wind.

## PACKAGING

**MASTERSEAL 360** is available in 196L drums and 19.6L pails.

## SHELF LIFE

**MASTERSEAL 360** can be stored in tightly sealed original packaging for 12 months.

## PRECAUTIONS

**Health :** **MASTERSEAL 360** contains certain chemicals that can cause skin irritation if exposed and respiratory reaction if inhaled. Wear gloves, masks and use hand barrier creams while handling the product. Wash hands 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 copious quantities of water and seek medical help immediately. If ingested, do not induce vomiting. Consult doctor immediately.

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

**Fire :** **MASTERSEAL 360** is flammable. Avoid exposure to naked flame. Do not smoke while handling the product.

**Flash point :** 60°C

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

AN/MSeal360/v2/060409

## 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.