

# MasterProtect® P 1895

## High performance corrosion resistant vinyl ester primer

### DESCRIPTION

**MasterProtect P 1895** is a high performance vinyl ester corrosion resistant protective primer for application on concrete and steel substrates. In addition to excellent physical strength, impact and thermal shock resistance **MasterProtect P 1895** also exhibits superior resistance to acids, alkalis, hypochlorites and many solvents. **MasterProtect P 1895** is roller applied on to the substrate. It can also be used in combination with a heavy duty reinforcing layer of fibreglass cloth to form a protective chemical resistant lining. Supplied as a two-pack pre-catalysed system comprising of vinyl ester resin and a catalysed. It requires only on site mixing producing an easily applied chemically resistant finish.

Ultimate protection is developed within 4 days at room temperature (25°C) and can take longer for temperatures below this.

### PRIMARY USES

**MasterProtect P 1895** is used to ensure excellent bond strength to concrete and steel as well as secondary protective layer. **MasterProtect P 1895** system offers maximum corrosion and temperature resistance protection to concrete and steel structures against acids, alkalis, hypochlorites and solvents.

**MasterProtect P 1895** can also be used as a gas and vapour barrier. Other usage areas include oil refineries, paper mills, power stations, garages, tanks, hospitals, sugar refineries, hangars, laboratories and most chemical containment areas.

Contact your BASF representative for further advice

### APPEARANCE AND FINISH

Transparent glossy

### ADVANTAGES

- Durable
- Service temperature up to 105°C\*
- Waterproof and protective
- High chemical resistance

- Exceptional adhesion to concrete and steel
- Pre-catalysed
- Easily applied by brush or roller

### PACKAGING

**MasterProtect P 1895** comprises of Vinyl ester resin as base and pre-weighed catalysed as reactor unit. These components are supplied in 10kg and 20 kg units.

### TYPICAL PROPERTIES\*

Pot-Life	15 minutes @ 40°C
Bond to concrete	Concrete failure
Tensile Strength	86 MPa
Tensile Modulus	3.2 GPa
Flexural Strength	141 MPa
Flexural Modulus	3.5 GPa
% Elongation at break	6.5
Heat Deflection Temperature	105°C
Barcol Hardness	30
Thermal conductivity (K-values)	0.18
Coefficient of linear thermal expansion	5.68 x 10 <sup>-5</sup> mm/mm/°C
Electrical properties (Average dielectric constant)	3.39 (ASTM D150)

### APPLICATION PROCEDURE

#### SURFACE PREPARATION

##### Steel:

All previous surface treatments should be removed taking the surface back to base metal. The base metal should be abraded and preferably shot blasted with grit, steel shot or proprietary abrasive. Steel surface should be grit blasted according to specifications to meet a minimum profile of 70 µm

Cleaning with solvent or a strong detergent is advisable to ensure surface is free from grease etc. Following surface preparation, one coat of **MasterProtect P 1895** should be applied at a film thickness of approximately 150 µm. Do not allow surface to re-oxidise before application of **MasterProtect P 1895**.

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## Concrete:

Ensure concrete is free from excessive laitance, grease, oil, curing compound, etc. Ensure concrete is sound, cutting back where necessary and making good using suitable BASF **MasterEmaco** or **MasterBrace** repair systems. Ensure all blow holes and surface imperfections are made good prior to application of the **MasterProtect P 1895**.

Ensure concrete is at least 28 days old and has a minimum compressive strength of 25 MPa and has a moisture content of less than 2% by mass of concrete. Contamination by oil, grease, fats etc. must be removed before other forms of preparation begin. Remove laitance to expose blow holes, by light grit blasting prior to priming grit blasted surface with **MasterProtect P 1895**

## MIXING

**MasterProtect P 1895** is supplied in two pre-weighed components, liquid resin and catalyst. Add catalyst contents to the liquid resin and mix thoroughly using a slow speed drill fitted with a suitable mixing paddle. To ensure an even distribution of catalyst for curing DO NOT PART MIX.

## APPLICATION

Substrate temperature to receive **MasterProtect P 1895** should be at above 10°C for proper application. Prime concrete surface with **MasterProtect P 1895** to 300 µm thick (WFT). Ensure that the surface is tack free before proceeding. **MasterProtect P 1895** can be applied using good quality rollers or short haired brushes.

## OVERCOATING

Where areas need to be over coated due to damage etc. it is important that the areas to be treated are well abraded using a stiff rotary wire brush or coarse sand paper or sand blasted to give an adequate key.

Completely strip off any unsound coating and proceed with priming as for new work.

## CHEMICAL RESISTANCE

**MasterProtect P 1895** is resistant to the following typically encountered chemicals up to 100°C

- Acetic Acid, 25% concentration
- Aluminium Chloride, 100% concentration
- Aluminium Chlorohydroxide, 50% concentration
- Ammonium Thiocyanate, 20% concentration
- Barium Chloride, 100% concentration
- Benzene Sulfonic Acid, 30% concentration
- Carbon Monoxide Gas, 100% concentration
- Hydrochloric Acid, 15% concentration
- Lactic Acid, 100% concentration
- Mineral Spirits, 100% concentration
- Aviation hydraulic fuels (Skydrol)
- Motor Oil, 100% concentration
- Phosphoric Acid, 100% concentration
- Sea Water, 100% concentration
- Sulfuric Acid, 25% concentration
- Vinegar, 100% concentration
- Ammonium Hydroxide, 28% concentration (resistant up to 52°C)
- Urea (saturated solution), resistant up to 82°C
- Sodium Hypochlorite, 15% concentration (resistant up to 66°C)

## THEORETICAL THICKNESS

Film thickness	WFT	DFT
<b>MasterProtect P 1895</b>	300 µm	150 µm

## THEORETICAL THICKNESS

	Coverage
<b>MasterProtect P 1895</b>	0.30 kg/m <sup>2</sup>

## EQUIPMENT CARE

All equipment must be cleaned immediately after use with Styrene solvent. Similar cleaning procedures should be adopted for break periods exceeding 10 minutes duration.

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## STORAGE AND SHELF-LIFE

Store under cover out of direct sunlight and protect from extremes of temperature and fire hazard. In tropical climates the product must be stored in an air conditioned environment. Failure to comply with the recommended storage conditions may result in premature deterioration of the product or packaging. Shelf life of **MasterProtect** resins, hardeners and primers is three months at 20°C. Due to the limited shelf life of **MasterProtect** resin BASF will not warranty shelf life and will not accept any material returns. Do not store at temperature higher than 32°C

For specific storage advices 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. Treat splashes to eyes and skin immediately. If accidentally ingested, seek immediate medical attention. Keep away from children & animals. Reseal containers after use. For further information, refer to material safety data sheet.

## 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 BASF Products are manufactured under a management system independently certified to conform to the requirements of the quality, environmental and occupational health and safety standards of ISO 9001 and BASF ESHQ recommendations.

\* Properties listed are based on laboratory controlled tests.

® = Registered trademark of the BASF-Group in many countries.

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## STATEMENT OF RESPONSIBILITY

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