

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 fiberglass 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 vapor 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 Master Builders Solutions 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 ⁻⁵ 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**.

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 Master Builders Solutions **MasterEmaco** or **MasterBrace** repair systems. Ensure all blow holes and surface imperfections are made good prior to application of the **MasterProtect P 1895**.

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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
- Aluminum Chloride, 100% concentration
- Aluminum 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

MasterProtect P 1895 300 µm 150 µm

THEORETICAL THICKNESS

Coverage

MasterProtect P 1895 0.30 kg/m²

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.

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 Master Builders Solutions 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 Master Builders Solutions's Technical Services Department.

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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 Master Builders Solutions representative.

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

QUALITY AND CARE

All Master Builders Solutions 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 Master Builders Solutions ESHQ recommendations.

* Properties listed are based on laboratory controlled tests.

® = Registered trademark of the MBCC-Group in many countries

CONTACT

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Disclaimer:

In view of widely varying site conditions and fields of application of our products, this technical data sheet is meant to provide general application guidelines only. This information is based on our present knowledge and experience. The customer is not released from the obligation to conduct careful testing of suitability and possible application for the intended use. The customer is obliged to contact the technical help-line for fields of application not expressly stated in the technical data sheet under "Fields of Application". Use of the product beyond the fields of application as stated in the technical data sheet without previous consultation with Master Builders Solutions and possible resulting damages are in the sole responsibility of the customer.

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