

# CONCRESlVE<sup>®</sup> ERL HES

**A high build epoxy liner for applications where abrasion and chemical resistance are required**

## Description

CONCRESlVE ERL HES is a multi component solvent free modified epoxy resin mortar specifically designed to meet the in-service demands of a chemical resistant lining mortar where early strength characteristics are required.

The selected blend of fillers and resins produce a mortar with exceptional handling properties. The finished cured mortar is highly impervious and combines optimum chemical and mechanical resistance.

## Primary uses

CONCRESlVE ERL HES can be applied to most commonly encountered building materials such as concrete, blockwork, brickwork, clay pipes and iron. Typical applications include:

- Lining and benching new build and refurbished manholes.
- Sewage digester tanks.
- Water retaining structures.
- Wherever an impervious lining or mortar is required with a high level of chemical resistance and early strength characteristics.

## Advantages

- Designed for vertical, horizontal and overhead application.
- Good adhesion and cure under damp conditions.
- Excellent pot life and working time.
- Low exotherm.
- High mechanical strength.
- Non toxic.

## Packaging

CONCRESlVE ERL HES is supplied in 26kg units.

## Application procedure

Thoroughly mix the base with the reactor and then add in the aggregate to obtain a trowellable mortar of uniform colour and appearance. Whenever possible, use a mechanical mixer such as a Mixal or similar.

Surfaces must be clean and free of surface moisture. All dirt, cement laitance and deleterious matter must be removed by thorough wire brushing, grit blasting or scabbling followed by blowing clean with oil-free compressed air.

All surfaces must be primed. Use CONCRESlVE 1020, a two-pack solventless adhesive and tack coat.

## \*Typical properties at 25°C\*

Thermal compatibility with concrete (ASTM C884):	Pass
Compressive strength (BS 6319, Part 2)	>50N/mm <sup>2</sup> at 25°C
1 day	25°C
7 days	>70N/mm <sup>2</sup> at 25°C
Full cure:	7 days
Service temperature:	-20°C to +65°C
Application temperature:	15°C to 45°C
Density (BS 6319, Part 1):	Approx. 2000 kg/m <sup>3</sup>
Flexural strength (BS 6319 Part 3)	18N/mm <sup>2</sup>
Tensile strength (BS 6319 Part 7)	10N/mm <sup>2</sup>



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## Standards

ASTM C881, Type III, Grade 3, Classes B & C.

## Chemical resistance

CONGRESIVE ERL HES has been specifically designed for use in sewage environments in hot climates.

CONGRESIVE ERL HES has excellent resistance to a wide range of aqueous media, raw sewage, dilute mineral acids, alkalis, salt water, detergents etc. Resistant to hydrocarbons and chlorinated solvents.

Poor resistance to alcohols, ketones and organic acid. CONGRESIVE ERL HES may yellow on exposure to certain chemicals or environments. This yellowing does not affect the chemical or mechanical properties of CONGRESIVE ERL HES.

## Guide to application

Thoroughly mix base and reactor components of the primer for 1 minute and apply evenly to the substrate using a stiff brush. The contents of the container must be used within 60 minutes of mixing at 25°C.

Priming should be carried out in advance of application of the mortar. It is essential to apply the mortar on top of the primer whilst the latter is still tacky. If the first priming coat should gel, apply a second priming coat before applying the mortar.

1 litre of CONGRESIVE 1020 Primer will be sufficient to treat approximately 4-8 square metres (dependant on porosity and texture of surface).

The thoroughly mixed mortar should be used without delay and applied using a steel trowel. Press well into the primed surface and compact to ensure positive and permanent adhesion. Use a steel trowel to finish and bring resin to the surface.

When used in vertical applications, thickness up to 10mm can be applied in one coat. If greater thicknesses are required, further priming between layers is necessary and the backing layer should be cross hatched before cure takes place to provide a mechanical key. TO ENSURE MAXIMUM CHEMICAL RESISTANCE A MINIMUM APPLICATION THICKNESS OF **5MM** IS RECOMMENDED.

## Note:

CONGRESIVE ERL HES has been specifically formulated to ensure optimum application properties over a wide range of temperatures. Due to its exceptional pot life, cold joints can generally be avoided. If due to particular circumstances day work joints are necessary, take care to stop the mortar and re-prime. Care should also be taken at wall and floor joints and angled fillets should be provided wherever possible.

Should a smooth glossy finish be required the surface may be overcoated with CONGRESIVE 1020.

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## Coverage

A 26kg pack will cover 2.6 m<sup>2</sup> at a thickness of 5mm excluding wastage.

## Equipment care

All equipment should be cleaned immediately after use by means of CLEANING SOLVENT NO. 2.

## 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 may also be tainted with vapour until product is fully cured). Treat splashes to eyes and skin immediately. If accidentally ingested, seek immediate medical attention. Reseal containers after use.

## Shelf life

1 year in unopened containers in normal warehouse conditions.

## Storage

Store under cover out of direct sunlight, clear of the ground on pallets protected from rainfall and extremes of temperature. Avoid excessive compaction. 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. For specific storage advice consult BASF's Technical Services Department.

## 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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**As all BASF technical datasheets are updated on a regular basis it is the user's responsibility to obtain the most recent issue.**

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