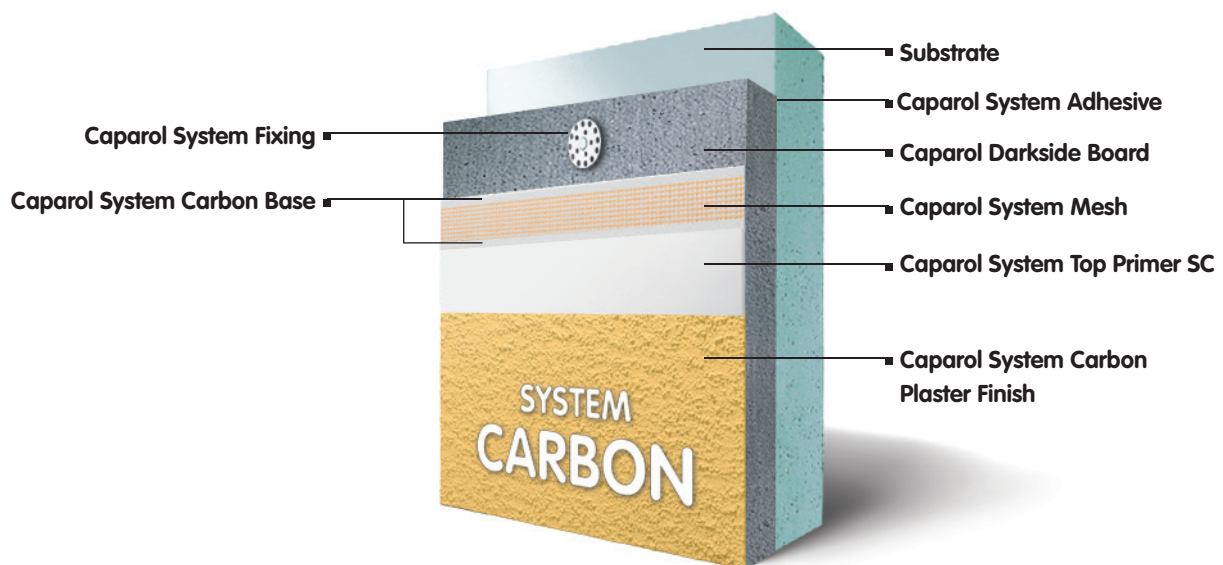


## System features

- Expanded polystyrene insulation
- Cost effective solution
- Excellent detailing options
- Proven technology
- Wide variety of colours
- Reliable protection and crack resistance
- Proven track record of 50 years plus

## System build up



## System details

**Caparol System Sub Primer P** - Primer for stabilising previously painted surfaces.

**Caparol System Sub Primer HT** - Primer for stabilising porous untreated surfaces.

**Caparol System Adhesive** - Adhesive to be used to apply insulation boards to substrate.

**Caparol Darkside Board** - Expanded polystyrene insulation board with a lambda value of 0.032.

**Caparol System Fire Break** - Lamella mineral wool fire barriers

**Caparol System Fire Break Fixing** - Mechanical fixing for Lamella mineral wool fire barriers.

**Caparol System Fixing** - Mechanical fixing for insulation boards.

**Caparol System Carbon Base** - Basecoat render for Caparol System Carbon.

**Caparol System Mesh** - Reinforcing mesh for embedding in basecoat layer.

**Caparol System Top Primer SC** - To be applied to basecoat render prior to topcoat application.

**Caparol System Carbon Plaster Finish** - Silicone based topcoat render with a 1.5mm aggregate.

**Caparol System Brick Slip** - Flexible Acrylic Brick Slip to be applied in conjunction with Caparol System Bonding Mortar

**Caparol System Bonding Mortar** - Bonding Mortar to be used in conjunction with the Caparol System Brick Slip.



All installation of Caparol materials in the UK shall be performed by Caparol Carbon Partners. Under no circumstances should any of the Caparol products be altered with any additives, except for small amounts of clean water as directed on the label.

## Substrate assessment

In all cases the condition and stability of the underlying substrate should be assessed prior to the commencement of work.

## Substrate preparation

Generally: Remove any loose or de-bonded materials by thoroughly dry brushing.

Ensure that the prepared surface is clean, dry and free from dust, laitance, grease, oil and any other contaminants.

## Priming - Caparol System Sub Primer P/HT

If required a fungicidal wash must be applied.

If required apply Caparol System Sub Primer P/HT to substrate.

Caparol System Sub Primer P – Apply with a roller/brush (0.23 litre/m<sup>2</sup> min).

Caparol System Sub Primer HT – Apply with a roller/brush (0.30 litre/m<sup>2</sup> min).

## Base rail

Align base rail and fix with Caparol anchors spaced at a maximum of 500mm apart – ensure the base rail is not distorted. Insert base rail connectors at all rail joints. Corners should be made with mitred cuts or a Caparol pre-formed corner section. Level and line can be adjusted using Caparol spacers available in a range of sizes.

## Adhesive - Caparol System Adhesive

Mix Caparol System Adhesive and apply to back of insulation board using the spot and continuous bead method. The Caparol System Adhesive must cover at least 50% of the board/substrate unless detailed otherwise. (Typically full perimeter bead and 3No. spots per board). On flat and even substrates, the tooth bed method of application can be used. 100% of board/substrate must be covered when using the tooth bed method of application with insulation boards.

Caparol System Adhesive to be applied at 4Kg/m<sup>2</sup> minimum.

## Insulation board - Caparol Darkside Board

Ensure that all insulation board edges are clean and free of Caparol System Adhesive. All joints must be staggered, minimum 200mm, additional cutting may be required around doors and windows to ensure that board joints do not correspond with corners of openings. Fit the insulation boards tightly and bed well. Any open joints between insulation boards up to a max width of 10mm must be closed with a strip of insulation board – **not** Caparol System Adhesive or render.

Allow approx 12 to 72 hours drying time for Caparol System Adhesive, depending on weather conditions. Subsequent rendering, mechanical anchoring or finishing work on insulation boards must not be carried out until Caparol System Adhesive has set and not before 24 hours.

## Fire barrier and fixings - Caparol System Fire Break and Fire Break Fixing

The Lamella Mineral Wool Fire Barriers are fixed at the desired position and are applied with 100% Caparol System Adhesive. This is then fixed with Caparol System Fire Break Mechanical Fixings at a maximum of 400mm centres. The reinforced basecoat must have additional reinforced mesh applied, above and below the Firebreak barrier, overlapping by 200mm.



## Mechanical fixings - Caparol System Fixing

These are specified according to board thickness and substrate. Anchors should be fixed in accordance with the manufacturer's instructions and Caparol fixing requirements.

**Any rasping of the EPS board surface must be carried out over the whole surface to achieve a smooth, even finish, prior to application of a reinforced coat. For curved wall applications, rasping must achieve a smoothly curved surface with no visible faceting or unevenness.**

## Sealant - Caparol System Seal

Install Caparol System Seal in conjunction with detail drawings.

## Beading

All corner beads and any additional beading as specified is to be secured to insulation boards with Caparol System Carbon Base at corners and align until plumb.

All beads should be cut neatly, mitres formed at return angles and sharp edges, swarf and other potentially dangerous projections removed. Fix securely, using the longest possible lengths, plumb, square and true to line and level, ensuring full contact of wings with background. After coatings have been applied, remove coating material while still wet from surfaces of beads/stops, which are to be exposed to view.

## Basecoat - Caparol System Carbon Base

Apply Caparol System Carbon Base render to the fixed insulation boards using a stainless steel trowel. Level out using a plasterer's straight edge or by combing through with a 10x10 tooth trowel. Float specified reinforcing mesh into the top of the basecoat render, ensuring a minimum horizontal and vertical overlap of 100mm. All corners at openings must be additionally reinforced with 250 x 250mm mesh strips embedded diagonally into the wet basecoat render. Immediately trowel the mesh into the basecoat while still wet and smooth off to a finished thickness using a stainless steel trowel. For optimum strength, the mesh must sit in the top one third of the basecoat. Leave basecoat render to set for at least 2 to 3 days before applying Caparol System Top Primer SC and Caparol System Carbon Finish and Plaster. Adjoining areas of EPS insulation must have an additional strip of reinforcing mesh applied within the basecoat with a minimum 200mm overlap.

Caparol System Carbon Base to be applied at 6Kg/m<sup>2</sup> minimum.

## Top primer - Caparol System Top Primer SC

Apply Caparol System Top Primer SC to dry basecoat render using a short pile roller, prior to applying Caparol Carbon Plaster and Finish. Drying time 2-6 hours (weather dependent).

Caparol System Top Primer SC to be applied at 0.30 kg/m<sup>2</sup> minimum.

## Ancillary works

Prior to the application of Caparol System Carbon Plaster and Finish, all scaffolding boards should be cleaned to ensure minimum dirt being transferred onto the finished topcoat. The Caparol System Carbon Plaster and Finish is a finishing trade, work sequencing should ensure that no or very minimum work is carried out onto the render after application of Caparol System Carbon Plaster and Finish. Where scaffold plugs are to be retained, appropriate scaffold ties to be used in accordance with system details.



## Top coat - Caparol System Carbon Plaster and Finish

Apply Caparol System Carbon Plaster and Finish using a stainless steel trowel and immediately create the desired effect using a plastic finishing trowel. Drying time of Caparol System Carbon Plaster and Finish is approximately 1 to 2 days (weather dependent).

Caparol System Carbon Plaster and Finish should be applied at 1.8Kg/m<sup>2</sup> minimum.

The following general rules should be followed while applying Caparol System Carbon Plaster and Finish:

1. Use a clean, rust-free low speed mixer, thoroughly stir the Caparol System Carbon Plaster and Finish to a uniform consistency.
2. Caparol System Carbon Plaster and Finish should be applied in a continuous application always working to a wet edge. Care should be taken to avoid texture changes at different levels. To Prevent staining of the finish coating, always ensure that the scaffold boards are free from dust before commencing application of the final coat. If possible, entire sections or elevations should be achieved by working to natural breaks in the building or changes in colour. Where day-joints are unavoidable these should be made to coincide with natural features such as a line of window cills. Apply a masking tape at the desired position of the joint and apply the Caparol System Carbon Plaster and Finish overlapping the edge of the tape. Carefully remove the tape while the Caparol System Carbon Plaster and Finish is still wet to leave a fair edge. Once the finish material has set subsequent applications may be applied by masking the previously completed section with tape and carefully applying the new finish to achieve a barely visible joint.
3. Weather conditions will be a factor in the application of the Caparol System Carbon Plaster and Finish as well as the drying time.

## Brick slip finish - Caparol System Brick slip and Bonding Mortar

Use a trowel to apply the Bonding Mortar to the basecoat and a notched trowel (4 x 6 or 5 x 5mm) to comb through the adhesive in a horizontal direction to create a ridged bed.

Place the Caparol System Brick Slip on top of the open adhesive, leaving a joint width in between and press into position.

Use a damp brush to smooth the adhesive over in the area of the joint before the adhesive has set.

Ensure a close connection between the adhesive compound and the Caparol System Brick Slip.

Only apply as much adhesive as can be covered with Caparol System Brick Slip before a skin is formed.

## Protection and cleaning

All plasters described should never be applied if ambient and surface temperatures cannot be kept above +5°C. Prior to installation, the wall shall be free of residual moisture. The stored material should be protected from frost and strong sunlight.

Care should be taken to protect other building elements such as windows, sills etc but spilled or dropped materials may be removed from most surfaces with a wet sponge or cloth before the material has dried out. If the render is partially dry removal may be possible using a soap solution to soften the render and warm water to clean the surface. Absorbent surfaces such as concrete, brick, etc maybe affected by the pigments of the render and where spillage is likely then these surfaces should be protected with appropriate covering material.

Adequately protect newly applied external coatings against first and rain for the first 48 hours using a polyethylene sheet/ debris netting hung clear of the face or other approved method.



## General comments

Prepare backgrounds as specified for the type of coating to be applied.

Biocides must be approved and registered by the Health and Safety Executive (HSE) and listed in the current 'Reference Book 500' as surface biocides.

Apply each coating firmly to achieve good adhesion and in one continuous operation between angles and joints.

All coatings to be not less than the thickness specified and firmly bonded to give an even and consistent appearance.

Prevent excessively quick or localised drying out.

The standard of finish shall meet the requirements of BSEN 13914-1: 2005 NA. 15 assessment of external rendered finishes.

Work in the shade and out of drying winds whenever possible. Allow each coat to dry out thoroughly to ensure that drying shrinkage is substantially complete before applying next coat.