



Superior Exteriors

# AAC LIGHTWEIGHT BLOCKS

## Substrate preparation and RSA Coating Systems product application information

Please refer to separate [Application Guidelines for AAC Lightweight Panels](#).

**RSA strongly recommend the use of our full render, texture and protective coating systems over AAC lightweight blocks. We DO NOT recommend mixing and matching different products from different manufacturers as part of a coating system – as they have not been tested for adhesion or cohesion with RSA products.**

### PREPARATION

**Cleaning:** Ensure all surfaces to be coated are sound, clean, dry, free from dust, oil, release agents, loose material, efflorescence and/or other contaminants. Remove all Hebel adhesive dags and protrusions and brush surfaces down with a stiff broom prior to the application of products.

**Masking:** For all surfaces not to be coated (windows, doors, roofs, finished floors etc) we recommend masking, covering or otherwise protecting the surface prior to any application.

**Note:** For masking, we recommend only the use of high quality long life masking products.

**Cleaning During Application:** Should any RSA product get onto surfaces that are not to be coated, clean the surface immediately with clean water. It is the applicator's responsibility to use the correct cleaning technique and product/s for each surface and to ensure the product is removed without damaging the surface.

**Note:** The clean up process must be carried out during each stage of the application of product/s.

### SUBSTRATE CHECK

Ensure the substrate meets all Australian Standards and have been installed in accordance with the manufacturer's instructions and in accordance with good building practices, paying particular attention to the positioning of control joints. The success and integrity of the coating system is dependant on the quality and installation of the substrate.

### SUBSTRATE PREPARATION AND HYDRATION

Correct treatment of the building substrate and hydration of cement based products assists the development of high early hardness, reduces the likelihood of shrinkage cracking, and assists the render to achieve full strength and long term integrity when applied correctly.

The hydration process starts prior to the application of render coats by using the correct substrate preparation technique.

It is absolutely critical to correctly seal AAC lightweight surfaces prior to the application of EP Render coats, as this limits water loss from the render to the substrate. In turn, it also keeps the water in the freshly applied render (reducing the likelihood of plastic shrinkage cracking) and eliminates the need to cure the render after application.\* See CURING section.

### Sealing

AAC lightweight blocks must be sealed with a 1:1 mix of RSA Render Bond and water (e.g. Into a 15 litre bucket pour 6 litres of water and add to the water 6 litres of Render Bond and stir with a mechanical mixer). Best results are achieved when the sealer is applied at least 24 hours prior to the render application.

- 1** Mix equal parts of water and RSA Render Bond (e.g. 6 litres of water to 6 litres of Render Bond) and stir in with a mechanical mixer to make an economical sealer.
- 2** Liberally apply the sealer by roller, brush or pressure/spray pack to the Hebel substrate 3. The sealer must be allowed to dry for a minimum of 2 hours, however best results are achieved (and allows more working time of the EP Render) when the sealer is applied at least 24 hours prior to the application of render.

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### CORNER BEADS AND TRIMS

For detailed installation information refer to the RSA [Set and Prep Multipurpose Adhesive Application Guidelines](#).

3.5 to 6mm corner beads and trims can be installed, or may be required as part of a substrate coating specification. In either case RSA Set and Prep must be used to install high quality, RSA approved, UV resistant PVC corner beads and trims

### MIXING EP RENDER

**Note: If the mixing process is not followed the render may:**

- **Set up fast and be difficult to apply.**
  - **'Go off' too quickly on the wall.**
  - **Be difficult to float and finish.**
- 1 For pump use, mix the render according to the pump manufacturer's recommendations. If the machine requires you to add dry mix please do so. For wet mix machines refer to point two below.
  - 2 Slowly add EP Render to 3.7 to 4 litres of clean potable water whilst vigorously stirring with a suitable mechanical mixer (drill and paddle).
  - 3 **Mix the render for at least 3 minutes to activate additives.**
  - 4 **Allow EP Render to stand for a minimum of 5 minutes to ensure that the chemical reaction of additives occurs.**
  - 5 Remix the render for 1 minute whilst adjusting the consistency via addition of water or render as required.

**Pot life:** The pot life of mixed EP Render when left in the shade is 2-2.5 hours.

### APPLICATION INFORMATION

EP Render can be applied in one or multiple coats depending on substrate requirements. For single coat applications, it is important to note that if floating is done too early:

- shrinkage may occur - highlighting Hebel joints, substrate imperfections and promoting plastic shrinkage cracks in the finish.
- the bond of the render to the substrate

may be reduced or can be eliminated completely resulting in unsound drummy sections of render.

### Hand Trowel

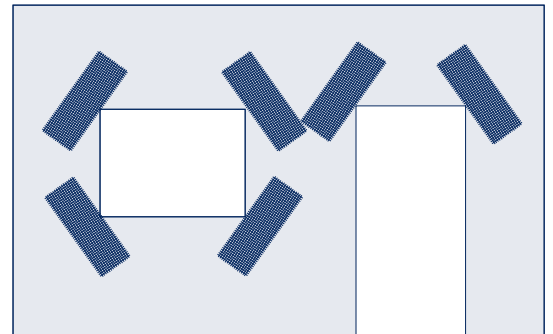
EP Render is ideal for all hand trowel applications and is designed to be easy to apply, straighten, screed and float finish. Due to the extended pot life/'hang time' of the product, the plastering crew can mix more bags at a time, apply and finish more area and enjoy increased productivity, render strength and integrity.

### Render Pump

EP Render is ideal for all machine (render pump) applications and is designed to pump consistently, respond well to darbying and screeding and remain easy to float. Due to the extended pot life/'hang time' of the product, the plastering crew can apply and finish more area and enjoy increased productivity, render strength and integrity.

### Application Procedure

- 1 3.5, 4.5 or 6mm corner beads and trims should be installed using RSA Set and Prep
- 2 Lightly bed/trowel in 300mm X 500mm strips of RSA approved 160gsm alkali resistant fibreglass reinforcing mesh on a 45 degree angle over and under (where applicable) all openings and stress points into approximately 1.5mm thickness of RSA Set and Prep and feather out. (see diagram). Allow to dry for at least three hours or until firm prior to over-coating.



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- 3 As a one coat application, apply 4-8mm of EP Render by trowel or pump. Flatten the render using darbies, screeds or long trowels as preferred, or as outlined in project specifications, to required straightness/trueness .
- 4 If the 300 x 500 strips were not embedded above and below openings at step 2, do so now into wet render. Also into wet render embed and gently iron in with a long trowel, RSA approved,160 gsm alkali resistant fibreglass reinforcing mesh to entire surface area. **Care must be taken to overlap wings of corner beads and trims by a least 25mm, and overlapping strips of mesh to mesh by a minimum of 100mm.**  
**Note:** Care must be taken to avoid crinkles and air pockets when bedding the mesh.
- 5 When firm, float finish the EP Render (concealing 100% of the mesh with render). Note: Should a second coat of EP Render be necessary to help conceal mesh, a tight 1-2mm coat may be applied the same day (when first coat is firm but still green ) this can be over isolated areas or entire surface as required, and then float finish. Allow EP Render to harden for a minimum of 24 hours prior to the application of selected trowel-on acrylic.
- 6 Apply selected RSA Flexirender or trowel-on texture ensuring a minimum 1mm dry film thickness (DFT) of trowel-on acrylic is applied.
- 7 Apply two coats of selected RSA protective coating such as RSA Rapid Shield Matt. Prior to the application of RSA protective coatings or roll on coatings the substrate must contain less than 15% Wood moisture Equivalent (WME).

### Notes:

Total render coating thickness must not exceed 8mm over AAC lightweight blocks.

Control/expansion/movement joints in all substrates must be carried through the trowel-on coating system to a minimum width of 10mm.

As per standard solid plastering practice it is important to **apply render in even coats** e.g. 4-6 or 6-8mm. **Do not apply from 4-8mm in a single coat** to remedy poor substrate straightness. When render is applied at varying thicknesses on the same surface the render will dry out at different rates increasing the chances of plastic shrinkage cracking in the render finish.

### \*CURING

Due to the sealing or hydrating of the substrate prior to application of EP Render, curing is only necessary when it is applied in hot, dry (low humidity) and/or windy conditions and where high early/overnight hardness of the finish has not been achieved. In these instances it is necessary to assist the curing process by soaking the render once or twice a day for the first two days.

### OVER-COATING

When over-coating with RSA trowel-on acrylic renders or textures, application may commence 24 hours after completion of EP Render.

Prior to the application of RSA protective coatings such as RSA Rapid Shield Matt or roll on texture coatings the substrate must contain less than 15% WME.

### CLEAN UP

Clean all equipment immediately with water.

### LIMITATIONS

When applied, the products cannot be expected to straighten non-level substrates. The product will not remedy poor quality substrate installations. RSA products are not a substitute for good solid plastering trade practices. It is the plasterer's responsibility to assess each project to determine 'best practice'. **If in doubt, phone 07 3412 8111.**

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### PRECAUTIONS

RSA products should only be applied when weather conditions allow.

Protect freshly applied products from high winds, freezing and temperatures below 5°C for 48 hours after application. The products should also be protected from rain for up to 48hrs after application.

RSA products should only be applied within a temperature range of 5-35°C.

**DISCLAIMER:** The information relating to the application of the above products is given in good faith based on our current knowledge and experience of the product when properly stored, handled and applied. We cannot guarantee the product will be suitable, effective or safe when used for any purpose other than the stated uses. To the extent that it is lawful, we exclude warranties implied by law and limit our liability to the cost of replacing the product. We accept no liability for loss or injury caused by improper use, incompetent preparation, inexpert or negligent application, or ordinary wear and tear.

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