

Application Guide - Partel VARA FLUID Spray

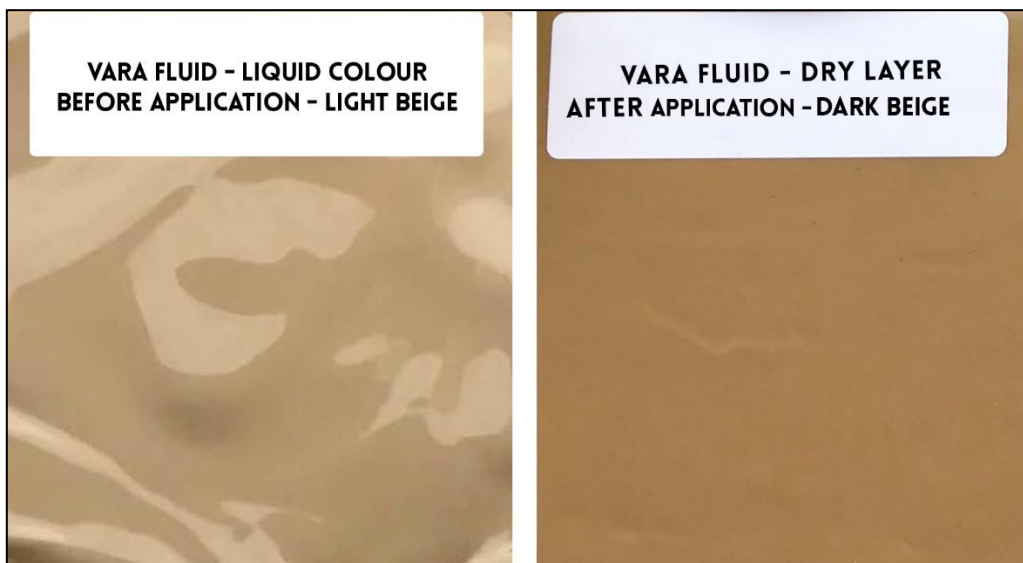
Manufacturer: Partel

Airtightness system: Surface sealing



Overview of Vara Fluid Spray:

- Partel Vara Fluid Spray is a water-based air & vapour control layer (AVCL) that can be sprayed or pressure rolled, ensuring protection and continuous airtightness in both new build and retrofit projects.
- Vara Fluid Spray is part of the SMART Partel range, which means it has a variable SD value. The SD value can vary from 0.15m to 16m at 0.3mm thickness. This means Vara Fluid can change from being vapour open to being a vapour check, depending on surrounding conditions.
- The flexible nature of Vara Fluid Spray means it can cover cracks/joins of up to 2mm without the need for filler.
- Vara Fluid Spray can be applied to damp surfaces and comes ready to use, making installation quick and easy.
- Vara Fluid Spray is UV resistant for up to 3 months.
- Drying time for Vara Fluid varies depending on climactic conditions and substrate, but typically takes 30 – 120 minutes. Vara Fluid is a light beige colour when applied and turns to a dark beige as it dries, as shown below.



List of Tools Required for System Installation:

- Masking tape
- Airless pump and accessories or a long-haired paint roller (TriTech T7 Electric Airless Sprayer or equivalent).
- Handheld paddle mixer
- Buckets of water for cleaning
- Surface temperature meter
- Wet film gauge
- Personal protective equipment (safety glasses, gloves, mask, ear protection)

Suitable Substrates:

Partel Vara Fluid Spray can be applied to the following substrates without the use of a primer:

- Concrete blockwork (if dry and free of dust)
- Exterior grade gypsum/fibre board
- Brick
- Galvanised metal
- Steel
- OSB
- Plywood
- Other (contact manufacturer for confirmation)

Substrate Preparation:

- Due care must be taken to adequately prepare the substrate before applying a spray applied membrane. Without adequate preparation, membrane performance cannot be guaranteed.
 - The substrate surface must be clean and free of dust, grease or any contaminants. Any visible dust should be swept away from the substrate. Alternatively compressed air could be used to blow dust off the substrate.
 - While Vara Fluid Spray can be applied in damp conditions, the substrate must not be wet.
 - Any gaps/cracks in the substrate that exceed 2mm must be filled using a non-shrink gap filling mortar/foam. Allow the mortar/foam to dry before applying Vara Fluid Spray.
 - Vara Fluid Spray must not be applied if the air temperature or substrate surface temperature is below 5°C. This should be confirmed by a surface temperature meter.
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Best Practise Installation:

- Prepare the substrate as outlined above.
- Apply a face mask to protect against the fine spray before proceeding.
- Open the tin of Vara Fluid and mix well using the handheld paddle mixer. The fluid should have a smooth consistency.
- Apply ear protection before proceeding
- Place the hose of the airless sprayer in the tin of Vara Fluid Spray.
- Build the pressure to 120 – 150 bar.
- Apply a 517 spray tip.
- The Vara Fluid Spray should be applied in two layers, ensuring full coverage of the substrate. One layer should be applied from left to right, with the second layer being applied top to bottom. It should be applied with the tip of the sprayer at 90° to the substrate and at 200 – 300mm from the substrate.
- To ensure enough Vara Fluid has been applied to achieve an excellent level of airtightness, there should be a minimum consumption of 500g/m² and a coat thickness of 0.3-1.0mm, to be verified with a thickness gauge.
- Once the first layer has been applied, it should be allowed to dry fully before applying the second layer. The fluid is beige when applied and turns a dark beige when dry. This typically takes 30 – 120 minutes depending on the surrounding environment.
- Thickness is verified with a wet film thickness gauge after each layer has been applied to ensure a minimum total coverage of 0.3-1.0mm.
- Where finish plaster/render is to be installed on adjacent elements, Vara Fluid Spray should overlap the adjacent element by a minimum of 100mm.
- Clean the airless sprayer with warm water after use.

Vara Fluid Spray to Airtight Membrane Connection:

- Where Vara Fluid Spray is being used in combination with airtight membranes, the junction between the two is critical.
 - In such cases, the airtight membrane should be connected to the substrate using Vara Seal tape. Ensure the tape is applied centred on the joint between the membrane and the substrate. Apply pressure to the Vara Seal tape using a Helping Hand applicator card. There should be no creases or air pockets underneath the Vara Seal tape.
 - For example, where an airtight membrane is used on a ceiling and Vara Fluid Spray is used on masonry walls, the membrane should be sealed to the wall using Vara Seal tape before applying Vara Fluid Spray.
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- Once the adhesive in the Vara Seal tape has cured fully (24 hours), Vara Fluid Spray can be applied to the adjacent substrate (wall in the above example), following the same process as outlined above.
- The Vara Fluid Spray should overlap the Vara Seal tape/airtight membrane by at least 100mm with both layers.
- Allow all adhesives and Vara Fluid Spray to cure/dry fully before performing an air leakage test.
- Note: Where Vara Fluid Spray is being applied to airtight products that are not a part of the Partel range, contact a Partel technical consultant to confirm materials are compatible.

Vara Fluid Spray to Concrete Connection:

- Where Vara Fluid Spray is being used in combination with concrete elements, the junction between the two is critical.
- In such cases, an appropriate airtight tape should be used to connect the concrete element to the adjoining substrate before Vara Fluid Spray is applied. For example, where a masonry wall meets a concrete floor, Vara Seal tape should be installed at the junction.
- Apply Acraprime Spray to the concrete element before applying tape. Allow this to cure fully before applying the tape (approximately 30 minutes).
- Ensure the tape is applied centred on the joint between the concrete element and the substrate. Apply pressure to the Vara Seal tape using a Helping Hand applicator card. There should be no creases or air pockets underneath the Vara Seal Tape.
- Once the adhesive in the Vara Seal tape has cured fully, Vara Fluid Spray can be applied to the substrate (wall in the above example), following the same process as outlined above.
- The Vara Fluid Spray should overlap the Vara Seal tape/concrete floor by at least 100mm with both layers.
- Allow all adhesives and Vara Fluid Spray to cure/dry fully before performing an air leakage test.

Vara Fluid Spray to OSB Connection:

- Where Vara Fluid Spray is being used in combination with OSB elements, the junction between the two is critical.
 - In such cases, an appropriate airtight tape should be used to connect the OSB board to the adjoining substrate before Vara Fluid Spray is applied. For example, where an OSB board meets a masonry wall, Vara Seal tape should be installed.
 - Ensure the tape is applied centred on the joint between the OSB and the substrate. Apply pressure to the Vara Seal tape using a Helping Hand applicator card. There should be no creases or air pockets underneath the Vara Seal Tape.
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- Once the adhesive in the Vara Seal tape has cured fully, Vara Fluid Spray can be applied to the substrate (masonry wall in the above example), following the same process as outlined above.
- The Vara Fluid Spray should overlap the Vara Seal tape/masonry wall by at least 100mm with both layers.
- Allow all adhesives and Vara Fluid Spray to cure/dry fully before performing an air leakage test.

Movement Joints:

Where a joint between two elements is expected to move, due to shrinking for example, Vara Seal tape should be applied to the joint before Vara Fluid Spray is applied. Movement commonly occurs at the junction between two elements of different materials, and where timber-based products are used. Vara Seal tape can accommodate some movement, however if a large amount of movement is expected a stress relief loop should be formed when installing the Vara Seal tape.

Storage:

Vara Fluid Spray should be stored in a dry, well-ventilated environment. Temperatures should be between 5°C and 25°C and the product should not be exposed to sunlight or frost.

List of Materials mentioned above:

- **VARA FLUID Spray**



- **VARA SEAL Tape**



- **Acraprime Spray**



- **Helping hand applicator cards**



Installation Queries:

Please contact Partel with any queries on the installation process outlined above at sales@partel.ie. A member of the team will be happy to help.
