



Spraying LATICRETE® Membranes

TDS 410

HYDRO BAN®, HYDRO BAN XP, HYDRO BARRIER™ PLUS, and HYDRO BARRIER can be effectively sprayed to increase productivity on large projects. In addition to the conventional means of applying the above mentioned membranes (see applicable Data Sheets under the chosen membrane product listing at <https://laticrete.com/en/tile-and-stone-installation/waterproofing>), the airless spraying technique can be used as an alternate means of application. The following are the guidelines for this procedure. Most airless spray units can be used to apply the HYDRO BAN, HYDRO BAN XP, HYDRO BARRIER PLUS, or HYDRO BARRIER. This procedure will refer to the use of Graco's Mark IV Electric Airless Sprayer® and the 5900 HD Gas Powered Airless Sprayer. These sprayers are designed for spraying the contents from a 5 gallon (19 L) pail. Many airless sprayers are similar in design and will accomplish the same purpose.

Ultra Max II 495 Airless Sprayer

Ultra Max 695 Airless Sprayer

Ultra Max II 1595 Airless Sprayer



Description	Graco Part Number	Max Tip Size	Max GPM (LPM)	Max PSI (MPa)
Ultra Max II 495	17E857	0.025 (0.63 mm)	0.95 (3.6)	3,300 (22.8)
Ultra Max II 695	17E574	0.031 (0.79mm)	0.95 (3.6)	3,300 (22.8)
Ultra Max II 1595	17E596	0.043 (1.09 mm)	1.35 (5.1)	3,300 (22.8)

A good understanding of the equipment, set up, delivery and cleanup procedures are required in order to effectively spray HYDRO BAN.

Airless Spray Tip Characteristics: It is important to remember that the orifice size, in conjunction with the fan width size, determines the spray characteristics of the tip.

Examples: As the orifice size increases, while maintaining the same fan width size, the greater the volume of coating will be applied to the same area. Conversely, the larger the fan width size, while maintaining the same orifice size, will result in the same amount of material being applied over a greater surface area.



Typical LTX Sprayer Nozzle

Tip Size: LTX521 – has an orifice of 0.021” (0.5mm) and a fan width of 10” (250 mm) holding the nozzle 12” (300 mm) away from the substrate.

Tip Size: LTX631 – has an orifice of 0.031” (0.8mm) and a fan width of 12” (300mm) holding the nozzle 12” (300mm) from the substrate.

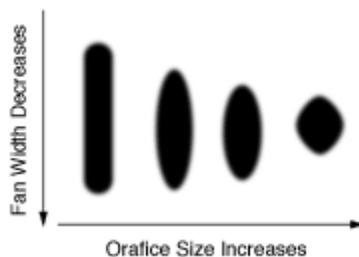
The use of spray tip with a smaller orifice will result in less product being delivered to the substrate requiring multiple passes to ensure a complete coating with optimum thickness.

Understanding Tip Wear

When beginning a project, choosing the right tip size and fan width will determine how effective the spraying process will be. The correct tip size will have a direct bearing on how much material is dispensed. However, spray tips will wear with normal use. Older, worn tips will increase delivery time and product consumption. Therefore, changing the spray tips often will result in greater productivity.

Choosing the right spray tip is essential for ensuring a quality finish. It’s important to replace a tip when it gets worn to ensure a precise spray pattern, maximum productivity and quality finish. When a tip wears, the orifice size increases, and the fan width decreases. This causes more liquid to hit a smaller area, which wastes waterproofing membrane and slows productivity. Tip life varies by coating, so if a tip is worn, replace it. Extend tip life by spraying at the lowest pressure that breaks up the coating into a complete spray pattern (atomize). Do not increase the pump pressure; it only wastes waterproofing membrane and causes unnecessary pump component wear.

The example below demonstrates the spray pattern of new and worn spray tips. As wear occurs, the pattern size decreases, and the orifice size increases. As a rule of thumb, it is best to replace the spray tips after spraying 30-45 gallons (114-171 liters) of HYDRO BAN[®], HYDRO BAN XP, HYDRO BARRIER[™] PLUS, and HYDRO BARRIER.



Spray Guns

Follow the specific airless sprayer and spray gun manufacturer's written instructions when using their specific equipment. The Graco Silver Gun Plus[®] is depicted in the following photo. This spray gun can be used for both vertical and horizontal applications. Some Spray Guns will allow filtering in the gun handle. The filters will need to be periodically cleaned and changed to ensure proper liquid flow through the spray gun and tip.



Silver Gun Plus

Health and Safety

See applicable SDS for [HYDRO BAN[®]](#), [HYDRO BAN XP](#), [HYDRO BARRIER[™] PLUS](#), and [HYDRO BARRIER](#) for complete information.

Application of LATICRETE Membrane

Follow all surface preparation requirements outlined in applicable data sheet or installation instructions. The sprayer should produce a maximum of 3,300 psi (22.8 MPa) with a flow rate of 0.95 to 1.6 GPM (3.6 to 6.0 LPM) using a 0.31" or a 0.43" reversible tip. Keep the unit filled with HYDRO BAN, HYDRO BAN XP, HYDRO BARRIER PLUS, or HYDRO BARRIER to ensure continuous application of liquid. The hose length should not exceed 100' (30.5 m) in length and 3/8" (9mm) in diameter.

Apply a continuous membrane film with an overlapping spray. The wet film has a sage green appearance and dries to a darker olive green color. When the first coat has dried to a uniform olive green color, approximately 45 to 90 minutes at 70°F (21° C), visually inspect the coating for any voids or pinholes. Fill any defects with additional material and apply the second coat at right angles to the first. The wet film thickness should be checked periodically using a wet film gauge. Each wet coat should be 0.015" (15 mil) to 0.022" (22 mil) (0.4 – 0.6 mm) thick. The combined dried coating should be 0.020" (20 mil) to 0.030" (30 mil) (0.5 - 0.8 mm) thick.

Check application thickness with a wet film gauge periodically as the HYDRO BAN, HYDRO BAN XP, HYDRO BARRIER PLUS, or HYDRO BARRIER is being dispensed to ensure that the appropriate thickness and coverage is achieved. Bounce back and overspray will consume more product. To achieve the required film thickness, the coating must be free from pinholes and air bubbles. Do not back roll coating. Allow the HYDRO BAN, HYDRO BAN XP, HYDRO BARRIER PLUS, and HYDRO BARRIER to cure in accord with the instructions in the applicable Data Sheets prior to the installation of the tile or stone finish.

It is important to note that areas not scheduled to receive the HYDRO BAN, HYDRO BAN XP, HYDRO BARRIER PLUS, or HYDRO BARRIER should be taped off and protected from any potential overspray. Expansion and movement joints should be honored and treated as outlined in the applicable data sheet.

NOTES: The operator of the spray equipment must have a working knowledge of the equipment used and be able to adapt to the project conditions as the spraying takes place. As the spray tips wear, adjustments will need to be made.

Spray tip selection, pressure adjustments and hose length will have a direct bearing on the results achieved.

Spray Equipment Setup, Clean Up and Maintenance

Follow the airless sprayer manufacturer's instructions on set up, operation, clean up and maintenance of their equipment. The airless spraying unit should be flushed, clean and free from any contaminants prior to use with HYDRO BAN[®], HYDRO BAN XP, HYDRO BARRIER[™] PLUS, or HYDRO BARRIER.

Airless spray equipment can be purchased by contacting:

Graco Inc.
Sales/Distribution/Service
P.O. Box 1141
Minneapolis, MN 5540-1441
Tel. 800.690.2894
Fax 800.334.6955
www.graco.com

Technical Data Sheets are subject to change without notice. For latest revision, check our website at <https://laticrete.com>
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