# StrataMax™ Nano-Tech Elastomeric Coating

## Spray Application Guidelines

This guide covers proper application technique when spraying StrataMax. Garland's StrataMax reflective coating system requires two coats of the same color, back-rolled in a crosshatch pattern. Airless spray equipment is an effective method applying StrataMax, particularly on large areas and irregular or vertical surfaces.

Personnel using this product should familiarize themselves with procedures for personal safety, workplace precautions, and equipment operation. Refer to product data sheets and safety data sheets (SDS) for more information.

## 1. CLIMATIC CONDITIONS

a. Rain, fog, dew, frost and relative humidity above 90% will adversely affect the adhesion and physical properties of StrataMax coatings. Do not apply if any of these conditions exist or will exist within five hours of application. The substrate must be dry at the time of application.

b. Store and maintain material temperature above 65°F (18°C) in the container.

c. Spray application is not recommended below 50°F (10°C).

d. At temperatures above 80°F (27°C), reduce the application rate on vertical or irregular surfaces to prevent sags or runs. Do not apply at temperatures above 95°F (35°C).

## 2. SPRAY EQUIPMENT

Airless spray equipment is the preferred tool for spray applications. Gas-powered spray equipment can also be used (consult with equipment manufacturer for recommendations). Air-atomized application is NOT recommended.

Spray equipment must be properly maintained and operated. Any misuse of spray equipment or accessories (such as over-pressurizing, modified parts, moisture in hose, worn or damaged parts) can result in serious bodily injury, fire, explosion, or property damage. Read and follow the equipment manufacturer's instructions and recommendations.

Airless spray pump must have minimum 2,500 psi output pressure rating and adequate delivery volume to support the spray tip orifice gallons per minute rating. High-pressure airless sprayers with a higher maximum pressure capability will allow spray application in cool weather or using spray hose lengths greater than 200 ft. (60.96 meters).

**Spray Pump Recommendations:**

1. Pump ratio 45:1.
2. Hose 1/2 in. (1.27 cm) ID Hose first 100 ft. (30.48 m) with swivel connections and 3/8 in. (0.95 cm) ID Hose for second 100 ft. (30.48 m).
3. Pressure 2,500 psi.
4. Working pressure is 2,000 at the gun. Depending on equipment setup, you may be able to spray the coating as low as 1,800 psi. Based on tip size, raise pressure to remove fingers in spray pattern.
5. High pressure fittings.
6. Input flow 100 psi.
7. Tip = 0.033-0.045 for an 8 in. (20.32 cm) pattern at 12 in. (30.48 cm) distance.
8. Recommended 12 in. (30.48 cm) extension with swivel tip.
9. Tip and pump sizes will change depending on temperature and pattern concerns.

## 3. PREPARATION & PRECAUTIONS

a. Rope off the area within 150 ft. (45.72 m) of spray area. Pay special attention to spray mist; it may travel up to 1/4 mile.

b. Seal off ventilation intakes within the affected area.

c. Use windbreaks, where necessary, to confine spray mist and avoid damage to nearby surfaces due to overspray or drift.

d. Keep spectators and personnel away from spray area.

**Protection Equipment Recommendations:**

1. Use supplied air breathing apparatus with full face mask or hood during spray application unless monitoring demonstrates TDI exposure is below OSHA permissible limits.
2. Fabric coveralls are recommended.
3. Impervious gloves are recommended.

## 4. APPLICATION & SPRAY TECHNIQUE

StrataMax systems require application of two (2) coats of the same color. After properly preparing the surface, apply one coat of StrataMax at a maximum rate of 1.0 gal/100 sq. ft. (0.41 l/m²) and back-roll. Allow first coat to cure for a minimum of 8 hours at 70°F (21.1°C) before application of top coat. Apply the second coat in a crosshatch pattern at a maximum rate of 1.0 gal/100 sq. ft. (0.41 l/m²) and back-roll. Total coverage rate should be a maximum of 2 gal./100 sq. ft. (0.82 l/m2).

**Spray Technique:**

1. Hold the spray gun perpendicular to the surface at a distance of 18-24 in. (45.27-60.96 cm) from the roof surface. While triggering the spray gun, move it at a rate to produce the desired coating wet mil thickness without thin spots or "holidays." Spray technique should include a "half lap" technique where each spray pass is overlapped 50% for uniform coverage. Check applied film thickness using a wet mil gauge.
2. Using a 2,000-2,500 psi fluid pressure will provide a uniform spray pattern without fingering.
3. Spray across roof, back-roll to ensure uniform coverage, then back spray across the same area to complete application.

**Coverage Rate:**

1. Proper coverage rate is critical to the success of all coating projects. Too much or too little coating will negatively affect the success of a coating project.
2. Review the specification for the project to ensure proper coverage rate.
3. Verify coverage rate with a wet mil thickness gauge periodically during installation.

## 5. CLEAN UP

a. Clean airless spray equipment with warm soapy water. Re-circulate water through pump supply, airless spray pump and spray hose to remove residual coating. Then do a final flush with clean water.

b. Do not leave product in airless spray system overnight. Under certain conditions, it is possible for these coatings to gel or skin over inside the equipment.

c. For long-term storage, a final flush with mineral spirits is recommended.

d. For further details, consult with your local Garland sales representative or with Garland Technical

e. Properly dispose clean up material to a designated facility.

## 6. STORAGE & HANDLING

a. Storage
   1. Keep containers closed; store in a dry cool place away from heat, sparks, open flame and moisture.
   2. For cold weather application, keep material stored above 65°F (18°C).

b. Mixing/Settling
   1. Settling or separation may occur upon storage.
   2. Stir material before using to ensure uniform consistency.