

# CORNING

## Corning Outdoor Pathway Tape Surface

P/N 004-121-AEN  
Issue 1

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# 1. General

Using Corning® Outdoor Pathway Tape — Surface with optical fiber cables on paved surfaces provides individual customer connections without excavation or demolition of surface area. The tape is designed to enhance the mechanical and environmental protection for the cable while providing a cosmetic cover to enable blending with the environmental surroundings.

## 1.1 Use and Application

The Corning Outdoor Pathway Tape — Surface is designed for outdoor environments, and should be deployed on hard, relatively clean and smooth surfaces.

The surface condition is a critical factor for successful adhesion of Corning Outdoor Pathway Tape — Surface. The pressure-sensitive adhesive on the tape requires good contact with a surface that is relatively clean and smooth.

The presence of oil or dirt, as well as cracked, rough, or a highly textured surface, will lessen the bonding strength of the tape. Examples of surfaces to avoid or to minimize contact with are shown below.



Oil-Stained Pavement

CRR5138



Dirt or Sand Covered Pavement

CRR5140



Major Cracks and Large Depressions

CRR5141

Corning® Outdoor Pathway Tape — Surface can be applied when the air and surface temperature are at a minimum of 5oC (40oF) and rising. Temperatures below this value will not provide sufficient tape adhesion.

### Surface Preparation

Cleaning the surface is best done under dry conditions. Testing has determined that the best way to remove dirt, leaves, and other debris is with a high-powered leaf blower. A less desirable method is to use a stiff broom. However, if there is an area of the surface with caked-on dirt that cannot be removed with a high-powered leaf blower, use a stiff broom to loosen the dirt prior to using a leaf blower.



Unlevel Pavement Surface

CRR5142

## 1.2 Planning

- Ensure that sufficient space is available at the installation site to accommodate the tape.
- The installing company should obtain rights-of-way from property owners and permits or other approvals from public authorities prior to installation of the tape.
- Select an appropriate site per your design plan and follow standard local practices.

## 2. Tools and Materials

### 2.1 Materials

The following materials are recommended for the installation of Corning Outdoor Pathway Tape — Surface:

- Chalk line or equivalent marking system
- Primer\*

Solvent resistant (polyester flocking) roller\*

\*Required for application on wet or damp surfaces

### 2.2 Tools

To install the cable the following tools are required:

- Cutting device
- Tamping device capable of providing approximately 50 lbs per square inch

## 3. Contents

- Each box contains 100 Ft of 4” wide, Corning® Outdoor Pathway Tape — Surface

Packing list of shipping container:

- (1) Installation instruction (SRP 004-121)
- (1) Corning Outdoor Pathway Tape — Surface, 4” wide

## 4. Storage and Transportation

Store tape indoors in its original packaging. When transported, the shipping boxes should be stacked in horizontal orientation. Observe all local safety precautions when moving boxes of tape.

## 5. Unpacking

**Step 1:** Place the box of tape near the installation location.

**Step 2:** Remove packaging material and remove tape from shipping box.

## 6. Application of Tape



**CAUTION:** Fiber optic cable is sensitive to excessive pulling, bending, and crushing forces. Consult the cable specification sheet for the cable you are installing. Do not bend the cable more sharply than the minimum recommended bend radius. Do not apply more pulling force to the cable than specified. Do not crush the cable or allow it to kink. Doing so may cause damage that can alter the transmission characteristics of the cable; the cable may have to be replaced.

### 6.1 Installation on Dry Surface

**Step 1:** The preferred method is to unwind a predetermined length of tape from the roll with the adhesive side up.

**Step 2:** Cut the tape to the desired length and position the fiber cable in the middle of the tape between the two channel supports. The channel supports provide compressive load resistance and help to protect the cable.

**Step 3:** Starting at one end, carefully flip the tape/cable over and adhere the tape to the pavement surface. Continue this process along the length of the tape/cable (in approximately 1 meter segments) while avoiding adhesive-to-adhesive contact with different sections of the tape. Using a chalk line as a guide will help ensure the tape is laminated to the pavement in a straight line.

**Step 4:** Use a tamping device on the outer 1" of each side, for the entire length of the installation, for optimum adhesion of the tape.



CRR5125



CRR5126

## 6.2 Installation on Wet/Damp Surface

Direct application of tape to a wet or damp surface is not recommended. Pull force testing indicates a minimum loss of approximately 10 pounds (4.5 kilograms) when the surface is damp and no adhesion at all if the surface has standing water. Application of a primer is necessary to obtain satisfactory adhesion when the surface is wet or damp (i.e., no standing water). The surface types that respond best under wet or damp conditions when a primer is used are concrete and brick. Surface types such as asphalt and travertine pavers under wet or damp conditions do not provide sufficient adhesion, even when a primer is used.



CRR5127

- Step 1:** The surface should have no standing water and be clean prior to application of the ATM temporary primer.
- Step 2:** Unwind a predetermined length of tape from the roll with the adhesive side up.
- Step 3:** Cut the tape to the desired length and position the fiber cable in the middle of the tape between the two channel supports. The channel supports provide compressive load resistance and help to protect the cable.
- Step 4:** Apply the primer liberally to the wet or damp surface. A solvent resistant (polyester flocking) roller is required. Work quickly, as the primer performs best when the tape is placed on it within 1-2 minutes. Pull force testing indicates that when a primer is used under wet or damp conditions (on concrete or brick) a pull force of 15-20 pounds (6.8-9.1 kilograms) can be obtained.
- Step 5:** Starting at one end, carefully flip the tape/cable over and adhere the tape to the pavement surface. Continue this process along the length of the tape/cable (in approximately 1 meter segments) while avoiding adhesive-to-adhesive contact with different sections of the tape. It is often useful to use a chalk line as a guide to ensure that the tape is laminated to the pavement in a straight line.
- Step 6:** Use a tamping device on the outer 1" of each tape side, for the entire length of the installation, to ensure optimum adhesion of the tape.

**IMPORTANT:** It is necessary to apply sufficient pressure on the tape to obtain proper adhesion to the surface. It is recommended that a weight of approximately 200 pounds (91 kilograms) be applied to both edges of the tape as well as the middle section. A commercial tamper cart with weights is available from Century Tool, Incorporated. An alternative method is to drive over the tape with a vehicle.

## 7. Radial Installation

It is possible to form radius turns when necessary or desired. Testing has shown that the smallest radius should be no less than 12 feet (3.7 meters). It is advised that the outer edge of the tape be positioned on the surface ahead of the inner edge of the tape. As the radius is formed, laminate the outer edge of the tape prior to laminating the inner edge of the tape.

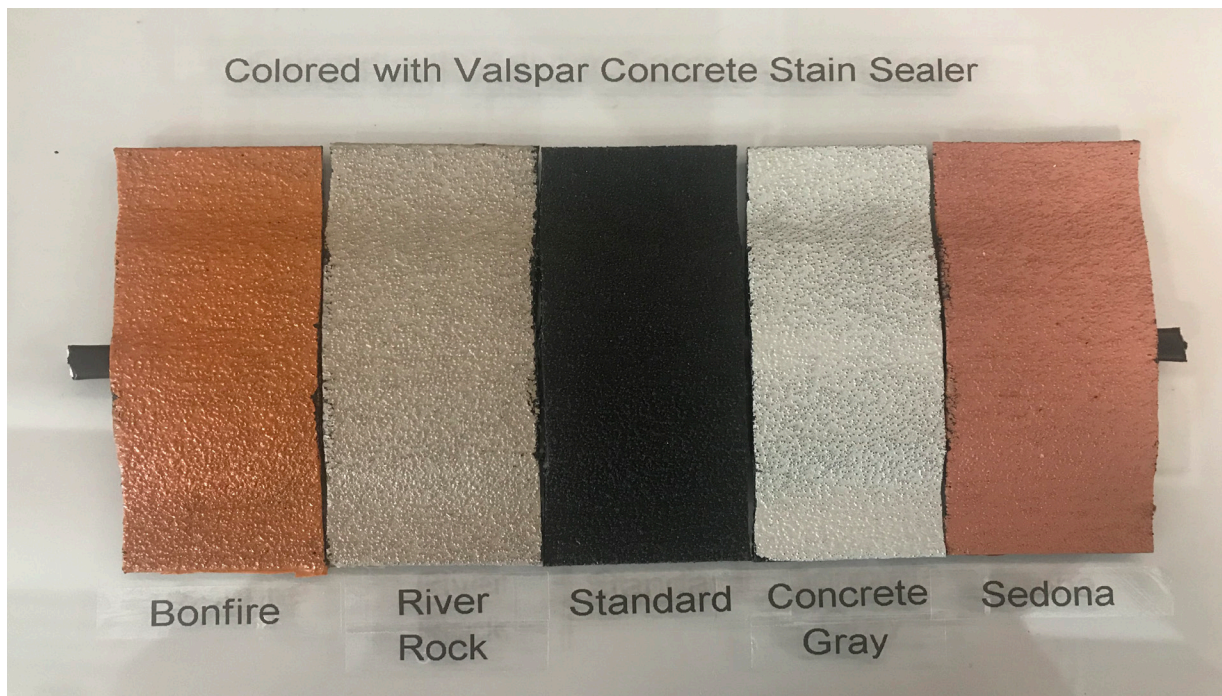
**IMPORTANT:** Repositioning the tape is not recommended, the adhesive performance will be significantly degraded. Plan the pathway for the tape in advance of placement to avoid potential reasons that might require repositioning. Do not reuse tape that has been previously applied.

## 8. Tape Coloring

Corning® Outdoor Pathway Tape — Surface may be custom colored after installation. The test palate shown below was colored using Valspar Concrete Stain Sealer. The standard black tape color is shown in the center of the test palate and four representative colors were chosen to demonstrate the final coloring effect. The resulting color change was accomplished with a single coat of the stain sealer.

It is recommended to use a coloring agent that is solvent based. Corning Outdoor Pathway Tape — Surface has a low adhesion backside (LAB) coating that is water repellent. Therefore, latex paints will tend to “bead” on the surface of the tape and not provide a consistent coloring effect.

Prior to coloring the tape, ensure that the surrounding pavement surface is well protected from paint spills or splattering during application. A region of at least 12 inches on each side of the tape should be covered with a protective barrier prior to the application of paint or stain sealer. A standard paint bristle brush or a paint roller that is compatible with solvents can be used for the coloring application.



CRR5128



**CAUTION:** Corning Outdoor Pathway Tape — Surface is susceptible to damage from vehicle tire turns when vehicle is stationary. For instance, when the front tire of a vehicle is positioned directly on the tape and the driver conducts a stationary turn. Homeowners should be made aware of this and asked to avoid parking on or turning directly over the tape. In the event the tape becomes damaged, the damaged portion can be excised and a new piece of tape can be inserted. Care should be taken not to damage the fiber optic cable during this operation.

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