

DIRECTOR SERIES PERMANENT TAPE

APPLICATION INSTRUCTIONS

INTRODUCTION

The successful performance of DIRECTOR SERIES pavement markings depends on proper application methods. Before the user applies these products, it is important they read and understand this instruction sheet thoroughly. The material replacement warranty is considered valid only when these instructions are followed.

If the installer encounters unusual conditions not mentioned in these instructions, it is their responsibility to contact SWARCO for specific instructions. Some of these conditions to be taken seriously are:

- Special surface protective treatments or curing compounds which could cause adhesive failure.
- Marginal weather conditions
- Road surfaces not mentioned in these instructions.
- Alternative application methods

WEATHER CONDITIONS

Do not install DIRECTOR SERIES products unless all the following conditions exist:

- AMBIENT AIR TEMPERATURE: Minimum 50 F. and rising.
- PAVEMENT SURFACE TEMPERATURE: Minimum 50 F. and rising.
- PREVIOUS NIGHT TEMPERATURE: Minimum 40 F.
- PRECIPITATION: No rain 24 hours prior to or following installation.

SURFACE CONDITIONS/APPLICATION METHOD

▪ ASPHALT

Standard mix asphalt:	INLAY or OVERLAY
Open grade friction course:	OVERLAY ONLY
Recycled asphalt:	INLAY or OVERLAY
Rubberized asphalt:	
Standard mix:	INLAY or OVERLAY
Open grade friction:	OVERLAY
Slurry seal:	OVERLAY AFTER 3 DAYS UNDER TRAFFIC
Chip seal:	OVERLAY AFTER LOOSE EXPOSED AGGREGATE IS REMOVED

▪ PORTLAND CONCRETE

New (less than 3 months):	SANDBLAST and OVERLAY USING SWARCO CONTACT CEMENT AS A PRIMER
Older, smooth:	After use, concrete usually becomes smooth, exposing large amounts of polished stone and must be ground or sandblasted before application.

Preferred Application:

Use DIRECTOR (non p.s.a. coated) WITH SWARCO CONTACT CEMENT ADHESIVE ON BOTH ROAD SURFACE AND BACK OF TAPE.

Alternative Application:

Use DIRECTOR (pressure sensitive adhesive back) WITH SWARCO PRIMER SEALER APPLIED TO ROAD SURFACE AS A PRIMER.

GENERAL RULES

- Pavement surface must be dry and clean (including unseen dirt, dust, oils, and sub-surface moisture). Clean pavement thoroughly by sweeping and high pressure air blasting.
- Do not install tape over deteriorating surfaces.
- Always remove concrete curing compounds before applying tape.
- Do not install tape over longitudinal pavement joints or seams.
- Overlay applications not recommended in snow removal areas after September 1.
- Use butt splices- do not overlap tape.
- Cut tape over all cross-seams, joints, and cracks in road.
- Use SWARCO Contact Cement as a primer for all installations of DIRECTOR SERIES products, except when inlaying, and in some cases for channelizing, lane and edge lines.
- Keep traffic off primed area until tape is installed.
- Always press (tamp) by rolling in the same direction as tape was installed.

SPECIFIC APPLICATION INSTRUCTIONS

INLAY METHOD

It is important that the lanes are paved so that the tape will not be installed over the asphalt seams. Offset the seams by paving the first lane approximately one foot narrower than the adjacent lanes. Apply the tape only on the edge line for the first lane. Centerline and lane delineation lines are applied to the second and following lanes as they are paved.

Procedure

1. Install and compact the asphalt.
2. Before the final pass of the asphalt finishing roller, and when the asphalt is firm enough to walk on, mark the road for the location of the tape.
3. Apply the tape. (The asphalt temperature should be between 120 F and 150 F.). Before applying the tape, remove any adhesive protective liners from the back of the tape materials.
4. Imbed the tape into the asphalt by completing the final compaction pass with the asphalt finishing roller.

Special Tips

1. To minimize distortion of the tape, initially tamp it with a standard tape tamper, using no more than 100 pounds of weight. This will partially imbed the material in the asphalt prior to final pass of the asphalt finishing roller.
2. Be sure to tamp in the same direction as the tape was initially installed.
3. Use only a non-vibrating steel roller with minimum water. Do not attempt to imbed the tape with a rubber wheeled roller on the newly applied material.
4. Transverse markings (crosswalks, stopbars, etc.) which extend across the pavement seams must be laid one lane at a time as the asphalt is laid. Cut the first width about one foot short of the seam. When the second lane is paved, cut the section for the second lane the same dimension as the lane width. Butt the second section up against the end of the first. This will again leave a space at the end of the line toward the next unpaved lane. For the last lane to be paved, cut the section long enough to complete the line. Do not overlap the joints. Always use butt splices.
5. If asphalt temperature is too high when tamping, the tape may distort or wrinkle. Traveling too fast with the roller can also have a similar result.

OVERLAY METHOD

Stop Bars, Crosswalks, Symbols and Legends

Overlay methods vary depending on the type and condition of the road surface to be marked. In general, tapes with preapplied pressure-sensitive adhesive should be used only on sandblasted concrete surfaces in conjunction with SWARCO DPE-4 PRIMER SEALER, or on new asphalt. Non-adhesive coated tapes should be used with SWARCO Contact Cement on asphalt surfaces open to traffic more than 10 days; sandblasted concrete is less

than 90 days old; older, smooth concrete road surfaces and areas where the markings will be subjected to high-shear, high-wear forces.

Channelizing Lines, Lane Lines and Edge Lines

In most cases, tape with pre-applied pressure-sensitive adhesive, applied directly to a clean, dry road surface will perform as expected. However, concrete surfaces with protective surface compounds or treatments must be sandblasted and primed. Older, smooth concrete, poor pavement conditions, marginal weather conditions, and areas subject to high-shear, high-wear forces should also be primed with SWARCO Contact Cement.

PROCEDURES

■ Tapes with pre-applied pressure-sensitive adhesive

1. SURFACE PREPARATION- Remove existing markings, surface curing compounds, or other temporary surface treatments by grinding, sandblasting or wire blasting.
2. CLEAN ROAD SURFACE thoroughly by sweeping and blowing away dust and dirt with high-pressure air.
3. PRE-MARK road for exact placement of tape.
4. APPLY SWARCO DPE-4 PRIMER SEALER to road surface on asphalt more than three days old, or concrete. Do not use primer sealer on new asphalt surfaces as it may adversely affect them. Apply one coat primer sealer to the road surface using a solvent-resistant long nap roller. Extend the primer sealer 1" beyond the perimeter of the area to be occupied by the tape. Allow the primer sealer to dry until it will not stick to the fingertips of lift in strings when touched.
5. INSTALL THE TAPE using great care in its placement. Once the tape has touched the primer sealer it cannot be moved. Be sure to remove any liner material before application. When splicing, do not overlap the tape. Always use butt splices.
6. ROLL THE TAPE using a roller tamper device carrying a minimum of 200 pounds. It is extremely important that this part of the procedure is not neglected. Make at least 3 passes across the tape in the direction it was installed. Make sure all the edges are adhered tightly to the road surface and open to traffic immediately.

■ Non-Adhesive Coated Tapes and SWARCO Contact Cement

Asphalt must be open at least 10 days prior to application. SWARCO Contact Cement will damage new asphalt surfaces and the excess free oils on the surface will prevent a proper bond from developing.

1. SURFACE PREPARATION- remove existing markings, surface curing compounds or other temporary surface treatments by grinding, sandblasting or wire brushing.
2. CLEAN ROAD SURFACE thoroughly by sweeping and blowing away dust and dirt with high-pressure air.
3. PRE-MARK road for exact placement of tape.
4. PREPARE THE SWARCO CONTACT CEMENT by thoroughly stirring or pouring from can to can until it is completely mixed. Do not thin.
5. APPLY THE SWARCO CONTACT CEMENT using a long nap, solvent-resistant roller. First, apply one coat to the road surface. Be sure to extend the contact cement at least 1" beyond the perimeter of the area to be occupied by the tape. While allowing the contact cement to dry, lay out the appropriate material with the back side up and apply one even coat of contact cement to the back of the material. After the first coat of contact cement is dry, recoat the road surface. Be sure to apply the contact cement evenly. Allow the contact cement to thoroughly dry.
6. APPLY THE TAPE using great care in its placement. Once the tape has touched the contact cement, it cannot be removed.
7. ROLL THE TAPE using a roller tamper device carrying a minimum of 200 pounds. It is extremely important that this part of the procedure is not neglected. Do not twist or turn the tamper on the tape and make a minimum of three passes over each part of the tape. Make sure all the edges are adhered tightly to the road surface and open to traffic immediately.

- **Channelized Lines, Lane Lines and Edge Lines**

1. PREPARE SURFACE by removing existing markings, surface curing compounds or other temporary surface treatments by grinding, sandblasting or wire blasting. Old, worn concrete must be sandblasted prior to application.
2. CLEAN ROAD SURFACE thoroughly by sweeping and blowing away dust and dirt with high pressure air.
3. PRE-MARK road for exact placement of tape.
4. APPLY SWARCO DPE-4 PRIMER SEALER if following conditions exist:
 - a. Marginal weather conditions
 - b. Questionable or poor pavement quality
 - c. Pavement was sandblasted, ground or wire brushes.
5. Allow primer sealer to dry thoroughly.
6. INSTALL THE TAPE using tape applicator machine or by hand.
7. ROLL THE TAPE using a roller tamper device carrying a minimum of 200 pounds. It is extremely important that this part of the procedure is not neglected. Do not twist or turn the tamper on the tape. Make at least 3 passes across the tape in the direction it was installed. Make sure all the edges are adhered tightly to the road surface and open to traffic immediately.

APPLICATION CHECKLIST FOR SWARCO PAVEMENT MARKING TAPES

1. Pavement must be completely dry; this includes unseen subsurface moisture.
2. Surface and ambient application temperature must be at least 50 F and rising. Refer to specific product's application instructions.
3. Pavement must be thoroughly cleaned with compressed air or industrial sweeping.
4. When primer is used, keep traffic off primed area until primer has fully cured and tape is installed.
5. Do not apply on longitudinal joints or seams.
6. Splice all horizontal seams, joints, and cracks.
7. Use butt splices - do not overlap tape.
8. Be sure tape is firmly pressed and adhered on pavement surface.
9. Read all health, hazard and precautionary information found in the MSDS sheet provided for all products. Gloves should be worn when handling tape.
10. The use of SWARCO DPE-4 Primer Sealer is recommended for the installation of all durable DIRECTOR tape and symbols.

When questionable conditions exist, contact your local SWARCO representative.