

DURO-LAST SOLVENT-GRIP® PLUS SPRAY ADHESIVE

DESCRIPTION:

Duro-Last® Solvent-Grip® Plus Spray Adhesive (Solvent-Grip Plus) is a low volatile organic compound (LVOC) solvent-based adhesive applied via a self-contained spray system. It is used to bond the following membranes to a variety of substrates on horizontal and vertical surfaces:

- Duro-Last
- Duro-Last X™
- Duro-Tuff®
- Duro-Last EV

Solvent-Grip Plus may be used on the following substrates, after they have been properly prepared, as described in the Duro-Last Adhered Systems specification:

- Structural Concrete (poured in place or precast)
- Wood (Plywood, OSB, or Lumber)
- Polyisocyanurate Rigid Insulation Board
- Duro-Guard® Cover Boards

The installing contractor is responsible for following all applicable codes.

ORDERING:

Solvent-Grip Plus cylinders and accessories are ordered separately.

- Solvent-Grip Plus cylinder (Item #11028)
- Spray gun and 2-foot (0.6 m) extension (Item #11023)
- Hoses
 - 12-foot (Item #11025)
 - 18-foot (Item #11024)

| COVERAGE RATES | | |
|--|--|-------------------------|
| | Per Cylinder | Per 100 ft ² |
| Roof Deck (Two-sided Application) | 1,100 ft ² (102.2 m ²) Finished coverage: 550 ft ² (51.1 m ²) | 0.18 cylinder |
| Parapet (Two-sided Application) | Same as Roof Deck | |



Solvent-Grip Plus cylinder

STORAGE AND HANDLING

- Protect Solvent-Grip Plus from freezing.
 - If frozen, return to room temperature and agitate for 30 seconds before use.
- Solvent-Grip Plus must not be shipped in temperatures less than -30° F (-34° C).
- Store Solvent-Grip Plus between 60° – 90° F (16° – 32° C), out of direct sunlight, for maximum shelf life.
 - Shelf life is 1 year, unopened, from the date of manufacture printed on the exterior box, with these recommended storage procedures.
- Keep cylinder valve ON to maintain pressure in the hose and spray gun.
 - Periodically spray in a safe manner to help prevent possible clogging.
 - Keep spray gun trigger locked when not in use.
 - Flush hose and spray gun with Duro-Last Solvent-Grip Cleaner for storage beyond 30 days.

| SOLVENT-GRIP PLUS PROPERTIES | |
|------------------------------|--|
| Property | Result |
| Consistency | Aerosol spray |
| Weight | 7.32 lb/gallon (0.88 kg/L) |
| Spray Pattern | Variable web |
| Odor | Solvent smell |
| Base | Synthetic polymer |
| Dry Time | 3 – 10 minutes** |
| Service Temperature | -30 – 200° F (-34 – 93° C) |
| Flammability | Flammable when wet, non-flammable when dry |
| Shelf Life | 12 months (unopened cylinder) |
| VOC Content | 37.2 oz/gal (232.5 g/L) (EPA method 24) |
| Prop 65 | "WARNING! This product can expose you to chemicals which are known to the State of California to cause cancer. For more information, go to www.P65Warnings.ca.gov ." |

* Approximate coverage

** Depending upon climate conditions



PRECAUTIONS:

- **Flammable. Do not expose to heat, flame or sparks. Do not smoke while applying.**
- Read Safety Data Sheets (SDS) prior to using.
- Wear proper personal protective equipment, such as gloves and eye protection, per the SDS.
- Empty cylinders may contain flammable vapors.
- Use only in well ventilated areas.
- Avoid breathing vapors.
- Keep cylinder valve open to maintain pressure in the hose and spray gun.
- Keep spray gun trigger locked when not in use.

INSTALLATION:

1. General

- Shake cylinder for 30 seconds to agitate contents which may have settled.
- Apply to surfaces which are clean, smooth, dry and free of oil and grease.
- Do not use with fleece membranes.
- Do not apply Solvent-Grip Plus where hot-air welding will be performed.
- Do not apply if the cylinder temperature has fallen below 70° F (21° C) or above 110° F (43° C).
- Only apply when the ambient temperature is at least 20° F (-6° C) and rising.
- Do not apply to expanded polystyrene (EPS) or extruded polystyrene (XPS).
- Always keep the cylinder in an upright position.
 - Attempting to dispense Solvent-Grip Plus when the cylinder is horizontal or upside down will cause only propellant to be released.
- Loss of propellant will greatly reduce spray patterns, coverage rates, and overall yield of the cylinder.
- Do not strip or overtighten any connection points.

2. Preparation

- Connect the hose to the spray gun.
- Connect the other end of the hose to the cylinder valve outlet.



Hose-to-Spray Gun Connection



Hose-to-Cylinder Connection

- Slowly turn the cylinder valve halfway ON (counterclockwise rotation) and check for leaks at each attachment of the cylinder, hose, and spray gun. Tighten accordingly to stop all leaks immediately.

IMPORTANT It is best practice to leave the cylinder in the ON position until fully evacuated and ready to connect to a new cylinder.

Do not turn the cylinder off with the hose and spray gun attached.

When not using the cylinder system, turn the spray gun control wheel (*refer to picture below*) to the off position to prevent accidental spray.

If the cylinder must be turned OFF:

- Fully evacuate the hose and spray gun assembly.
- Clean hose and spray gun before storing.
- Refer to the **CLEANUP** section for cleaning instructions.



Spray Gun Control Wheel Adjustment

3. Application

- a. With the cylinder upright, spray with a 50% overlap of the previous pattern holding the spray gun perpendicular to the substrate, approximately 12 inches (305 mm) away.

Use the control wheel located behind the spray gun trigger to adjust pattern width.

“Open” sprays wider. “Closed” sprays narrower.



50% Overlap Spray Pattern
(Blue color is used for photo representation only.)

- b. Spray **membrane and substrate** with a continuous, uniform pattern (avoid globs/puddles).

NOTE: Porous substrates may require an additional pass of adhesive.

- c. Refer to the Duro-Last Adhered Systems specification for membrane installation guidelines.
- d. Allow coated surfaces to dry until product does not transfer when touched. Drying/curing time will vary with ambient conditions (approx. 10 minutes). Dried product **WILL NOT** be tacky.
- *VERY IMPORTANT!!!*** Must bond surfaces together within 30 minutes after the adhesive is dry to the touch.
- e. When dry, roll the membrane into the substrate, avoiding wrinkles and air pockets. Smooth by hand or lightly broom the entire surface.
- f. Apply uniform pressure across the entirety of the bonded surface.
 - a. J-roller (for vertical surfaces/flashings)
 - b. 100-lb (45.36-kg) linoleum roller (horizontal surfaces/flat roof deck)

NOTE: Beyond 30 minutes, reapply a new light coat of adhesive to one surface and repeat all application steps. Adhesive will fully bond within approximately 24 hours of curing at 70° F (21° C).



Checking for Dry Solvent-Grip Plus



Solvent-Grip Plus Still Wet

4. Testing for Adhesion

After surfaces have been bonded and rolled, check the adhesion by peeling back the membrane edge. Bonding should not release from either surface.

Acceptable initial bonds will exhibit “legging/stringing” of adhesive from both surfaces (*picture below*).

If legging/stringing does not occur, follow “NOTE” for beyond 30 minutes.



Acceptable Solvent-Grip Plus “Legging/Stringing”

5. Transfer Hose and Spray Gun to a New Cylinder

When the cylinder is empty:

- a. Close the cylinder valve
- b. Depressurize the hose by holding the spray gun trigger.
- c. Remove the hose from the old cylinder
- d. Attach to a new cylinder.

Refer to the **DISPOSAL OF EMPTY CYLINDER** section for handling of empty cylinders.

CLEANUP:

NOTE: Never allow cleaners or waste materials to contact roofing materials.

Tools and surfaces: Use acetone or MEK.

Spray gun valve: attach the hose and spray gun to Duro-Last Solvent-Grip Cleaner and repeatedly trigger spray gun until operation is smooth.

Spray gun: Soak the brass tip/fitting with acetone or MEK, then use a small-gauge wire or torch clean-out tool.

Cleaner disposal: Always properly dispose of empty cleaners and waste materials.

DISPOSAL OF EMPTY CYLINDER

For proper cylinder disposal:

NOTE: There may be some residual pressurized propellant left in the cylinder. All of the adhesive should be exhausted.

1. Close the cylinder valve.
2. Open the spray gun to fully evacuate any remaining pressure.
3. Disconnect the hose connection.
4. Immediately transfer the hose to a new cylinder or to a cylinder of Duro-Last Solvent-Grip Cleaner.
5. Keeping the cylinder in a vertical position and the cylinder valve still closed, point the cylinder valve in a safe direction (preferably into a bucket or catch pan)
6. Slowly open the cylinder valve fully to ON.
7. Mark this cylinder “empty”
8. Allow the cylinder to sit with the cylinder valve ON for at least 1 hour to exhaust all pressure.



Cylinder Marked “EMPTY”

9. “Open cylinder vessel” for disposal:
The term “open cylinder vessel” refers to a once-pressurized cylinder that is no longer capable of holding pressure because it has been structurally compromised by introducing a hole or small opening.

10. To “open cylinder vessel”, puncture the rupture disc on the side of the empty, depressurized cylinder using a brass/nonferrous punch and hammer.



Location of Rupture Disk

11. Recycle or dispose of “open cylinder vessel” in accordance with all applicable regulations.

TROUBLESHOOTING

| Problem | Possible Cause | Remedy |
|----------------------------------|--|---|
| Poor Spray Pattern | <ul style="list-style-type: none"> • Wrong hose • Solvent-Grip Plus too cold • Partially opened cylinder valve • Wrong or dirty tip • Cylinder on its side • Improper spray gun adjustment | <ul style="list-style-type: none"> • Use hose provided by Duro-Last • Solvent-Grip Plus will perform best above 70 °F (21 °C) • Fully open cylinder valve • Install clean 9502 tip • Stand cylinder upright • Adjust pattern width with spray gun control wheel |
| Cylinder Will Not Spray Anything | <ul style="list-style-type: none"> • Cylinder is empty • Restricted or clogged tip • Restricted or clogged hose • Defective cylinder | <ul style="list-style-type: none"> • Replace cylinder • Install clean 9502 tip • Disconnect hose, spray cylinder into a bucket, if adhesive sprays from cylinder, replace or clean hose • Call Duro-Last at 800-248-0280 |
| Cylinder Sprays Only Propellant | <ul style="list-style-type: none"> • Cylinder on its side • Cylinder is empty • Defective cylinder | <ul style="list-style-type: none"> • Stand cylinder upright • Residual propellant remaining in cylinder, replace cylinder • If adhesive remains in the cylinder, call Duro-Last |
| Poor Bond Strength | <ul style="list-style-type: none"> • Adhesive still tacky • Substrate contaminated • Lack of pressure applied • Open time exceeded • Substrate too cold • Adhesive too cold | <ul style="list-style-type: none"> • Be sure adhesive has flashed prior to bonding. • Ensure substrate is clean • Apply consistent and uniform pressure to membrane and substrate • Apply a fresh coat of adhesive to at least one surface • Wait for substrate temperature to be at least 40° F (5° C) • Ensure cylinder is stored between 60° – 95° F (16° – 35° C) |

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