DURO-LAST SOLVENT-GRIP® SPRAY ADHESIVE

DESCRIPTION:

Duro-Last Solvent-Grip® Spray Adhesive (Solvent-Grip) is a low volatile organic compound (VOC) 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®

Solvent-Grip may be used on the following substrates, after they have been properly prepared, as described in the *Duro-Last Adhered Systems* specification. The installing contractor is responsible for following all applicable building, plumbing and electrical codes.

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

ORDERING:

Solvent-Grip cylinders and accessories are ordered separately.

- Solvent-Grip cylinder (Item #11020)
- Spray gun and 2-foot extension (Item #11023)
- Hoses
  - 12-foot (Item #11025)
  - 18-foot (Item #11024)

COVERAGE RATES		
	Per Pail	**Per 100 Sq. Ft.**
Roof Deck (Two-sided Application)	800 ft^2 (400 ft^2 finished coverage)	0.25 pail
Parapet (Two-sided Application)	Same as Roof Deck	Same as Roof Deck

800 square feet total adhesive:

400 square feet on substrate

400 square feet on membrane

= 400 square feet finished coverage

Solvent-Grip cylinder, spray gun, 2-foot extension and hose (Each item is ordered separately.)

STORAGE AND HANDLING

- Protect Solvent-Grip from freezing. If frozen, return to room temperature and agitate for 30 seconds before use.
- Solvent-Grip must not be shipped in temperatures less than -30 °F (-34 °C).
- Store Solvent-Grip between 70 °F (21 °C) and 90 °F (32 °C), out of direct sunlight, for maximum shelf life. Shelf life is one year in an unopened container, from date of manufacture printed on the container, when following these recommended storage procedures.
- Keep cylinder valve open 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 long-term storage beyond 30 days.

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SOLVENT-GRIP PROPERTIES	
Consistency	Aerosol spray
Weight	40 lb. / cylinder
Spray Pattern	Variable web
Odor	Acetone smell
Base	Synthetic rubber and resin
Dry Time	3 – 5 minutes **
Service Temperature	-30 – 180 °F (-34 – 82 °C)
Flammability	Flammable when wet, non-flammable when dry
Shelf Life	12 months (unopened cylinder)
VOC Content	240.0 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:

- Read Safety Data Sheets (SDS) prior to using.
- Wear proper personal protective equipment, such as gloves and eye protection, per the SDS. **Goggles (glasses), gloves and impervious clothing are required.**
- Combustible. Do not expose to heat, flame or sparks. Do not smoke while applying.
- Use only in well ventilated areas and avoid breathing vapors.
- Keep cylinder closed when not in use.
- Treat empty cylinders with caution since they may contain flammable vapors.

INSTALLATION:

1. General
   - Apply to surfaces which are clean, smooth, dry and free of oil and grease.
   - Only apply Solvent-Grip when the ambient temperature is at least 40 °F (5 °C) and rising. Do not apply if the cylinder temperature has fallen below 70 °F (21 °C).
   - Always keep the cylinder in an upright position. Attempting to dispense Solvent-Grip when the cylinder is horizontal or upside down will cause only propellant to be released. Loss of propellant will significantly reduce the spray pattern, coverage rates and overall yield of the cylinder.
   - Solvent-Grip may not be used with fleece membranes or Duro-Last EV membranes.
   - Do not apply Solvent-Grip where hot-air welding will be performed.
   - Do not allow Solvent-Grip to contact expanded polystyrene (EPS) or extruded polystyrene (XPS). Damage to EPS and XPS will occur. Squeegees must not be used when EPS or XPS are within the roofing system.
2. Roof Deck and Parapet
   a. Prior to use, shake cylinder for 30 seconds to agitate contents that may have settled.
   b. Using a 9/16-inch wrench and being careful to avoid cross-threading, connect the hose to the spray gun. Connect the other end of the hose to the cylinder valve outlet. Check to be sure you have the proper spray tip No. 9502 (brass spray tips are individually identified with engraved markings).


Hose to spray gun connection


Hose to cylinder connection

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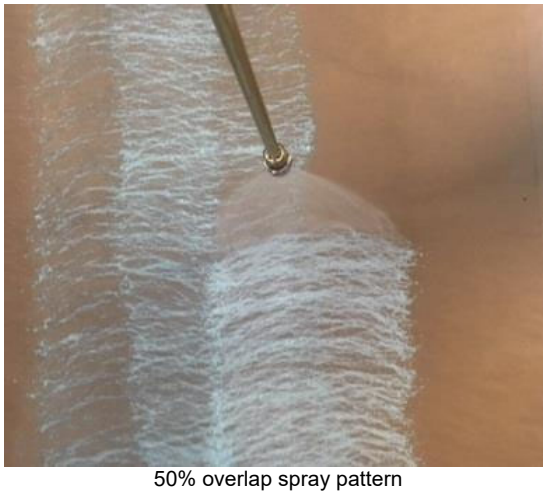
c. Slowly turn the cylinder valve ON (counterclockwise rotation) and check for leaks at each attachment of the cylinder, hose and spray gun. Tighten accordingly to stop all leaks immediately. It is recommended to open the cylinder valve halfway initially. Use caution not to strip or overtighten any connection points.

   IMPORTANT Once the cylinder is turned ON with the hose and spray gun attached, 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 for any duration of time as the Solvent-Grip may dry and clog in the hose. Leaving the cylinder ON will ensure the hose is kept under pressure and thus the Solvent-Grip will remain in a fluid state. When not using the cylinder system, turn the spray gun control wheel (picture below) to the off position to prevent accidental spray. If you must turn the cylinder OFF, you will need to fully evacuate the hose and spray gun assembly and clean it accordingly before storing it. Refer to the **CLEANUP** section for cleaning instructions.

Spray gun control wheel adjustment

d. With the cylinder in a vertical position, spray the Solvent-Grip with a 50% overlap of the previous pattern holding the spray gun approximately 12 inches from, and perpendicular to, the substrate. Select the width of your desired pattern using the control wheel located behind the spray gun trigger. The more “open” the wheel, the wider the pattern, the more “closed”, the narrower.



50% overlap spray pattern
(Blue color is used for photo representation only.)

e. Spray membrane and substrate with a continuous and uniform pattern (avoid globs or puddles) at the same rate. Ensure that a 50% overlap spray pattern is achieved. Porous substrates may require an additional pass of Solvent-Grip.

f. Refer to the *Duro-Last Adhered Systems* specification for guidelines regarding membrane installation.

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OPEN TIME AND TESTING FOR FLASH OFF

1. Allow both coated surfaces to dry (solvent flashes off within 3 to 5 minutes depending upon climate conditions) until Solvent-Grip does not transfer to finger or knuckle when touched.

   VERY IMPORTANT!!! You have 30 minutes after the Solvent-Grip is dry to the touch to contact bond both surfaces together. The Solvent-Grip **WILL NOT be tacky to the touch** after drying, but it will contact bond together with adequate pressure within 30 minutes. Contact bond the surfaces together as quickly as possible after drying. The longer the surfaces are "open", the more pressure is required to achieve desired bonds. If left open too long, beyond 30 minutes, reapply a new light coat of Solvent-Grip to one surface and repeat each step. The Solvent-Grip will yield full bond strength after approximately 24 hours of curing at 70 °F (21 °C). Curing time will vary depending on ambient temperature and humidity.

Checking for dry Solvent-Grip

Solvent-Grip still wet

2. When the Solvent-Grip is dry, roll the membrane into the substrate while avoiding wrinkles. Smooth with hand or lightly broom the entire surface to ensure there are no wrinkles or air pockets, then apply as much uniform pressure as possible across the entirety of the bonded surface with a clean J-roller (for vertical surfaces/flashings) or 100 lb. linoleum roller (horizontal surfaces/flat roof deck) to achieve maximum contact. ANY area that does not receive adequate pressure has the potential to yield a false bond and could lead to unacceptable or undesirable bonds.

TESTING FOR ADHESION:

After surfaces have been bonded and rolled, check the adhesion by peeling back the edge of the membrane. Solvent-Grip should not release from either surface. An acceptable initial bond will exhibit "legging/stringing" of Solvent-Grip from both surfaces (picture below). If legging/stringing does not occur, reapply a new light coat of Solvent-Grip to one surface and repeat each step.

Acceptable Solvent-Grip "legging/stringing"

TRANSFERRING HOSE AND SPRAY GUN TO A NEW CYLINDER:

When the cylinder is empty of Solvent-Grip, close the cylinder valve on the cylinder and depressurize the hose by holding the spray gun trigger. Remove the hose from the old cylinder and attach to a new cylinder. Refer to the **DISPOSAL OF EMPTY CYLINDER** section for handling of empty cylinders.

CLEANUP:

Acetone or MEK can be used to clean tools and surfaces. If the spray gun valve becomes stuck, attach the hose and spray gun to a cylinder of Duro-Last Solvent-Grip Cleaner and trigger spray gun repeatedly until operation is smooth. If the spray gun is clogged, a small-gauge wire or torch clean-out tool is helpful after soaking the brass tip/fitting with Acetone or MEK. Always empty cleaners and waste materials into a bucket and dispose properly. Never allow cleaners or waste materials to contact roofing materials.

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DISPOSAL OF EMPTY CYLINDER

Once the cylinder is fully exhausted of Solvent-Grip, follow these instructions for proper disposal:

1. Note that there may be some residual pressurized propellant left in the cylinder after the Solvent-Grip runs out. This is normal providing that all of the Solvent-Grip has been exhausted.
2. Once there is no Solvent-Grip remaining (spraying through the hose and spray gun with the spray gun control wheel adjustment fully open), close the cylinder valve, then open the spray gun to fully evacuate any remaining pressure in the hose and spray gun.
3. Disconnect the 9/16-inch hose connection to the cylinder.
4. Immediately transfer the hose to a new cylinder or to a cylinder of Duro-Last Solvent-Grip Cleaner, otherwise the residual Solvent-Grip in the line and spray gun may dry out and make the hose and spray gun unusable.
5. With the hose and spray gun now removed, 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) and **slowly** open the cylinder valve to full position to exhaust any remaining propellant and Solvent-Grip.
6. Mark this cylinder “empty”, keep the cylinder valve open and allow the cylinder to sit with the cylinder valve fully opened for at least one hour to fully exhaust all pressure.

Cylinder marked “EMPTY”

7. Once the cylinder has emptied fully and you can shake the cylinder with no material or propellant exhausting, it is now okay to “open cylinder vessel” for disposal. The term “open cylinder vessel” refers to a once pressurized cylinder that is no longer capable of holding a pressure because it has been compromised structurally by introducing a hole or small opening into the body of the cylinder.
8. To “open cylinder vessel”, puncture the rupture disc on the side of the empty, depressurized cylinder using a brass punch and hammer.


Location of rupture disk

9. Recycle or dispose of “open cylinder vessel” in accordance with all applicable local, state, and federal regulations.

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TROUBLESHOOTING

Problem	Possible Cause	Remedy
Poor Spray Pattern	• Wrong hose	• Use hose provided by Duro-Last
	• Solvent-Grip too cold	• Solvent-Grip will perform best above 70 °F (21 °C)
	• Partially opened cylinder valve	• Fully open cylinder valve
	• Wrong or dirty tip	• Install clean 9502 tip
	• Cylinder on its side	• Stand cylinder upright
	• Settling of cylinder contents	• Shake cylinder for 30 seconds to agitate contents
Collapsing or Sputtering Pattern	• Wrong hose	• Use hose provided by Duro-Last
	• Solvent-Grip too cold	• Solvent-Grip will perform best above 70 °F (21 °C)
	• Cylinder on its side	• Stand cylinder upright
Outside Edge Tracking of Pattern	• Wrong or dirty tip	• Install clean 9502 tip
	• Improper spray gun adjustment	• Adjust pattern width with spray gun control wheel
	• Settling of cylinder contents	• Shake cylinder for 30 seconds to agitate contents
Cylinder Will Not Spray Anything	• Cylinder is empty	• Replace cylinder
	• Restricted or clogged tip	• Install clean 9502 tip
	• Restricted or clogged hose	• Disconnect hose, spray cylinder into a bucket, if Solvent-Grip sprays from cylinder, replace or clean hose
	• Defective cylinder	• Call Duro-Last at 800-248-0280
Cylinder Will Spray Only Propellant	• Cylinder on its side	• Stand cylinder upright
	• Cylinder is empty	• Residual propellant remaining in cylinder, replace cylinder
	• Defective cylinder	• If Solvent-Grip remains in cylinder, call Duro-Last at 800-248-0280
Poor Bond Strength	• Bond has not reached full strength	• Full bond strength will develop within 24 hours
	• Solvent-Grip trapped in bond line	• Be sure Solvent-Grip has flashed prior to bonding membrane to substrate
	• Substrate contaminated	• Ensure substrate is clean
	• Insufficient Solvent-Grip applied	• Membrane and substrate must have at least 85% coverage with a 50% overlap of each fan pattern pass
	• Lack of pressure applied	• Apply consistent and uniform pressure to membrane and substrate
	• Open time exceeded	• If open time exceeds 40 to 60 minutes, depending on ambient temperature and humidity, apply a fresh coat of Solvent-Grip to at least one surface
	• Substrate too cold	• Wait for substrate temperature to be at least 40 °F (5 °C) and rising
	• Solvent-Grip too cold	• Ensure cylinder is stored between 70 °F (21 °C) and 90 °F (32 °C), rotate cold cylinders out for warm cylinders

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