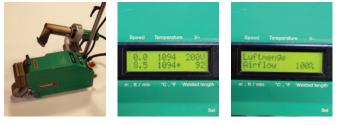
#### **EXPERIENCE THE CARLISLE DIFFERENCE**





# SURE-FLEX<sup>™</sup> PVC and KEE HP WELDING GUIDE

Leister Varimat	
Welding Temperature	1094°F
Speed	8.5 feet per minute
Airflow	100%



BAK LarOn	
Welding Temperature:	1094°F
Speed	8.5 feet per minute
Airflow	100%



#### Hand-Held Welder Ideal Set-Up Parameters

Hand-Held Welder		
Flashing	Set temperature setting at "7"	
Membrane	Set temperature setting at "8"	









CORRECT!

# INCORRECT!

» Hold hand roller flat to ensure proper weld.

### TROUBLESHOOTING TIPS

- » Confirm Auto-Welder settings are correct
- » Confirm power supply is sufficient for welder
- » Confirm extension cords include adequate wire size for run length
- » Confirm Auto-Welder weights are in place (2 weights minimum)
- » Confirm membrane is not contaminated with dirt or moisture
- » Confirm nozzle opening and air outlet holes are not damaged or obstructed
- » Confirm air intake is unrestricted and free from debris

As a reminder, this guide is meant to address the equipment most commonly utilized in the field; however, not all products or types of welding equipment are discussed in this guide. Applicators are encouraged to contact their Carlisle Field Service Representative with any questions. For additional information, refer to Carlisle's Spec Supplement: Heat Welding Equipment T-01-22.

> 800-479-6832 | P.O. Box 7000 | Carlisle, PA 17013 Fax: 717-245-7053 | **www.carlislesyntec.com** Carlisle and Sure-Flex are trademarks of Carlisle. Scotch-Brite is a trademark of 3M Company. 12.08.22 © 2022 Carlisle. REPRINT CODE: 610359 PVC-8854 - "Sure-Flex PVC Welding Guide"

# **Recommended Auto-Welder Settings**

#### Guide for all Carlisle PVC and KEE HP Membrane Thicknesses and Heat-Weldable Walkway Rolls

This guide is designed to provide information regarding common welder equipment settings to properly weld all thicknesses: 50-, 60-, and 80-mil Carlisle Sure-Flex PVC and KEE HP membranes, PVC heat weldable walkway rolls, and PVC flashing. As a reminder, this guide is not a substitute for good roofing practice. Test welds should be performed at the start of work each morning and afternoon using like material over the same substrate. Not all products or types of welding equipment are discussed in this guide. Applicators are encouraged to contact their Carlisle Field Service Representative with any questions. **For additional information, refer to Carlisle Spec Supplement: Heat Welding Equipment T-01-22.** 

BAK LarOn 21				
	<b>Smoke Reduction</b>	Standard		
Welding Temperature	900°F	1100°F		
Speed	9.5 feet per minute	13.5 feet per minute		
Airflow	100%	100%		
	HEAT SPEED	AIRFLOW		

Leister V2		
Welding Temperature	1094°F	
Speed	10.4 feet per minute	
Airflow	75%	





# **Carlisle's Best Practices**

### EQUIPMENT SETUP

#### **Use Proper Generators**

Use commercial-grade generators only. Required generator wattage follows:

- » 6,500 watts 1 Auto-Welder
- » 3,000 watts 2 Hand-Welders



#### **Use Proper Gauge Extension Cords**

- » Auto-Welders: 10 Gauge Wire- 100' maximum length
- » Hand-Welders: 12 Gauge Wire- 100' maximum length





10 GAUGE WIRE

12 GAUGE WIRE

#### **Auto-Welder Weights**

» Confirm weights are in place when using the auto welder (minimum 2 weights as shown).



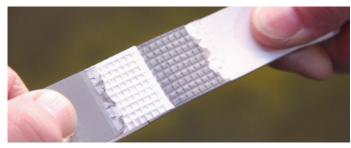
#### **Conditions That Affect Welding Set-Up Parameters:**

- » Cold/hot ambient temperatures
- » Sun versus shade
- » Substrate i.e. concrete vs. polyiso insulation
- » Level of wind

These conditions may be alleviated by varying the speed of the welder to adapt to environmental factors.

#### Check Test Welds Several Times Per Day:

- » Weld splice with recommended welder setting
- » Cut 1" wide splice sample across the seam
- » Pull 1" wide sample until failure Note: MUST BE COMPLETELY COOL





#### To Repair Aged and New Sure-Flex PVC and KEE HP Membrane

- 1. Clean all residue from the weld area utilizing PVC and KEE HP Membrane Cleaner and a Splice Wipe or clean natural fiber (cotton) rag
- 2. Weld the new membrane to the cleaned area using standard welding procedures.



If membrane becomes dirty during initial installation, Sure-Flex PVC and KEE HP Membranes can be cleaned using a Splice Wipe and PVC and KEE HP Membrane Cleaner.

### CRITICAL WELDING STEPS

#### Welding for Step-offs

- 1. Crease membrane into step-offs
- 2. Use 2" silicone roller
- 3. Complete immediately after auto-welder crosses seam intersection Note: Prevents formation of a water channel

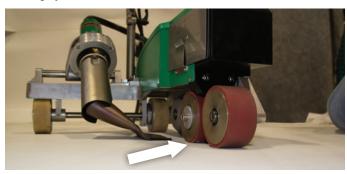


#### Probe All Seams at the End of Each Day



#### **Inspect Silicone Pressure Wheel**

» Regularly inspect silicone pressure wheel cover to ensure a fully intacted wheel with no damage. Damaged silicone wheel will affect the integrity of the weld.



## WELDER MAINTENANCE

#### **Ensure Proper Nozzle Adjustment**

» Make sure you rotate the nozzle to eliminate heel drag



#### **CORRECT!**



INCORRECT. HEEL DRAG CAN CAUSE DAMAGE TO MEMBRANE.

#### **Clean Nozzle Regularly with Brass Wire Brush**

» Confirm air outlet holes on top and bottom of nozzle are unobstructed.



#### Keep Air Intake Free From Debris

» Clean dirt and debris from heat gun air intake daily. This allows for maximum airflow.



DIRT AND DEBRIS IN INTAKE



**CLEAN INTAKE**