PV Solutions

ALPHA® & Kester® Tabbing & Stringing Fluxes

Fluxes that deliver best-in-class reliability and high throughput

Alpha and Kester, leaders in electronics assembly materials, provide innovative tabbing and stringing fluxes designed to create highly reliable interconnects with minimal residue on PV modules.

These fluxes not only maximize throughput and yield, but also lower equipment maintenance time, thereby reducing a manufacturer's per module cost.

Choosing ALPHA PV-71, Kester 952-S, or Kester SF800-LR offers superior performance combined with a lower total cost of ownership.

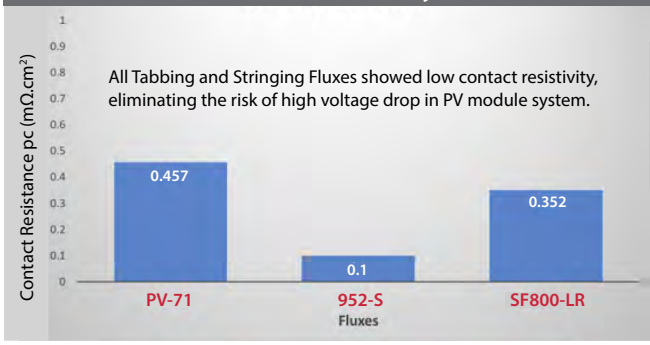
Key Features

- Produce solid interconnects: good conductivity, high peel strength and reliability
- Excellent wetting for high yield and throughput
- Minimal and tack free residues for low equipment maintenance and downtime
- Compatible with different encapsulants
- Wide process window across different cells, equipment and process parameters
- Applicable for dipping or spraying method

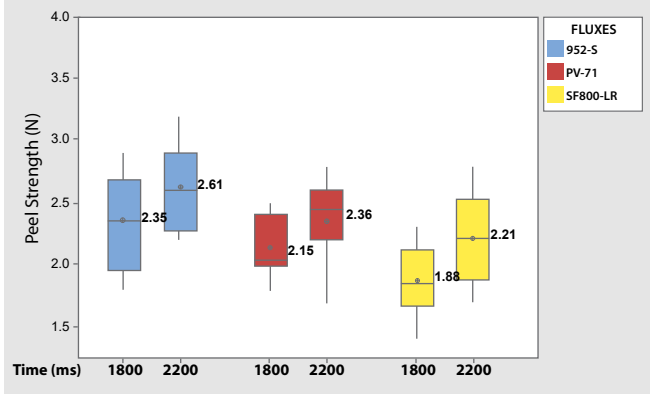
EVA Compatibility

- All Tabbing and Stringing Fluxes show no yellowish and bubbling after EVA lamination.
- Good EVA compatibility delivers long term electrical reliability of the solar panel.

Contact Resistivity



Peel Strength
(2200ms, 1800ms @65%)



Acceptable peel strength per IEC61215

alpha kester

PV Solutions

ALPHA® & Kester® Tabbing & Stringing Fluxes

AUTOMATED SOLDERING SYSTEMS

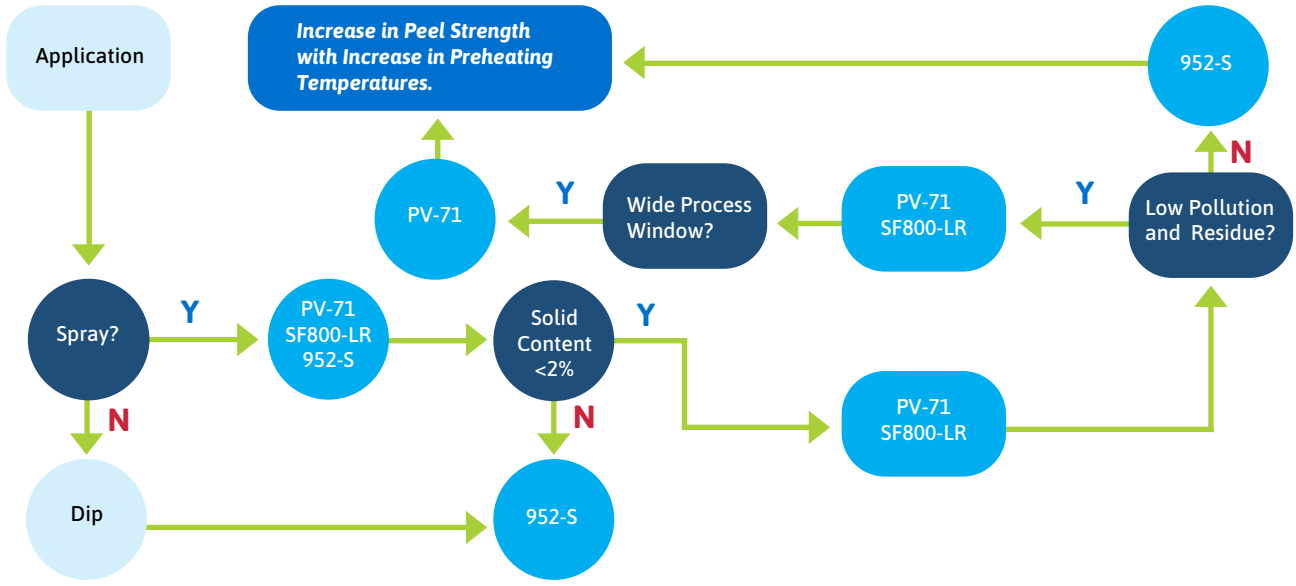
TECHNICAL DATA	ALPHA PV-71	Kester 952-S	Kester SF800-LR
Solid Content	1.65%	2.0%	1.5%
Acid Number (mg KOH/gm)	15.5	15.0	13.4
Specific Gravity	0.790	0.803	0.799
Flux Type, IPC J-STD-004(A)	ORL0	ORL0	ORL0
Halide & Halogen Content	NONE	NONE	NONE
SIR, IPC J-STD-004 (A)	PASSED	PASSED	PASSED

APPLICATION PROCESS

PROCESS CONTROL	ALPHA PV-71	Kester 952-S	Kester SF800-LR
Flux Application	Spray*, Dip	Spray, Dip*	Spray*, Dip
Preheating Temp.°C	100 - 160		
Soldering Method	Contact Soldering, IR, Convection		
Soldering Temp.°C (SnPb)	200 - 280		

**Preferred Method*

Alpha and Kester PV Fluxes prepare both the solder coated ribbon and the metallized busbars on the cSi cells to be soldered by reducing any surface oxidation and preventing the formation of further oxidation during heating cycles. To select the best flux to meet your tabbing and stringing process needs,
simply follow the process in the diagram to the below.



MacDermid Alpha ELECTRONICS SOLUTIONS

macdermidalpha.com
May 2021

Alpha and Kester are a product brand of MacDermid Alpha Electronics Solutions.

For more information, contact us at Assembly@MacDermidAlpha.com