

Physical Properties	Plastic Welder™		Plastic Welder™ II	Composite Welder™ FS	Flex Welder™	Flex Welder™ FC	Flex Bond™ Pipe Sealant	Metal Welder™	Metal Welder™ II
<b>Color</b>	Straw, Black	White	Straw, Black, White	Blue Green, Black	Off-White	Off-White, Black	Purple	Grey / Beads	Grey / Beads
<b>Mix ratio</b> (resin:hardener)	1:1	1:1	1:1	10:1	1:1	1:1	N / A	10:1	10:1
<b>Mixed viscosity</b> cps	50,000 <sup>1</sup>	50,000 <sup>1</sup>	56,000 <sup>1</sup>	120,000 <sup>1</sup>	52,000	52,000	1,580	90,000 <sup>4</sup>	90,000 <sup>4</sup>
<b>Working time</b> <sup>1</sup> minutes	4 ~ 6	2 ~ 3	15 ~ 20	4 ~ 8	9 ~ 12	3 ~ 5	3 ~ 4	4 ~ 6	12 ~ 16
<b>Fixture time</b> <sup>2</sup> minutes	10 ~ 15	8 ~ 10	30 ~ 35	10 ~ 15	40 ~ 45	11 ~ 15	9 ~ 10	20 ~ 25	45 ~ 55
<b>Functional cure</b> hours	0.75 ~ 1	0.75 ~ 1	2 ~ 4	0.75 ~ 1	2 ~ 4	1	1	1 ~ 2	4
<b>Adhesive tensile lap shear</b> (ASTM D1002) psi	3,500 <sup>3</sup>	3,500 <sup>3</sup>	3,000 <sup>3</sup>	2,250 <sup>3</sup>	2,563 <sup>3</sup>	2,554 <sup>3</sup>	1,482	2,450	2,020
<b>Tensile elongation</b> %	15 ~ 25	15 ~ 25	5 ~ 15	100 ~ 125	120	100	16	30 ~ 60	40 ~ 60
<b>Peel strength</b> pli	35 ~ 40	35 ~ 40	15 ~ 20	60 ~ 65	20 ~ 27	20 ~ 27	50	30 ~ 40	30 ~ 40
<b>Impact resistance</b> ft-lb / in <sup>2</sup>	22	22	17	22	20	19	N / A	>20	>20
<b>Maximum service temperature</b> °F dry	-67 ~ 250	-67 ~ 250	-67 ~ 250	-40 ~ 250	-67 ~ 250	-40 ~ 250	200	-67 ~ 200	-67 ~ 200

NOTES: <sup>1</sup> The maximum allowable time to mate and position parts after mixing and application of the adhesive. After this interval, parts must not be disturbed.

<sup>2</sup> The time required for the adhesive to generate sufficient bond strength to allow parts to be handled without deformation of the bond line.

<sup>3</sup> All tensile strength data per ASTM D1002 on grit-blasted steel, bond line thickness of 0.010".

<sup>4</sup> Thixotropic gel

Key: ● Excellent ◐ Very Good ○ Fair ⊖ Poor

Chemical Resistance									
<b>ACIDS</b>									
Acetic 10%	◐	◐	◐	◐	○	○	○	◐	◐
Hydrochloric 10%	○	◐	◐	◐	○	○	◐	◐	◐
Sulfuric 10%	●	◐	◐	◐	○	○	◐	◐	◐
<b>ALCOHOLS</b>									
Glycol	○	○	○	○	○	○	○	○	○
Isopropanol	●	●	●	●	●	●	●	●	●
Methanol	○	○	○	○	○	○	○	○	○
<b>KETONES</b>									
Acetone	○	○	○	○	○	○	○	○	○
Methyl ethyl ketone	○	○	○	○	○	○	○	○	○
<b>ALKALIS</b>									
Ammonium hydroxide 10%	◐	○	◐	◐	○	○	○	○	○
Sodium hydroxide 10%	◐	●	◐	◐	◐	◐	◐	◐	◐
<b>HYDROCARBONS</b>									
Gasoline (unleaded)	●	●	●	●	◐	◐	⊖	⊖	⊖
Mineral spirits	●	●	●	●	◐	◐	○	○	○
Motor oil	●	●	●	●	◐	◐	◐	◐	●
<b>CHLORINATED HYDROCARBONS</b>									
Perchloroethylene	○	○	○	○	○	○	○	○	○
<b>SALTS</b>									
Sodium chloride	◐	◐	◐	◐	◐	◐	◐	◐	◐
Trisodium phosphate	◐	◐	◐	◐	◐	◐	◐	◐	◐