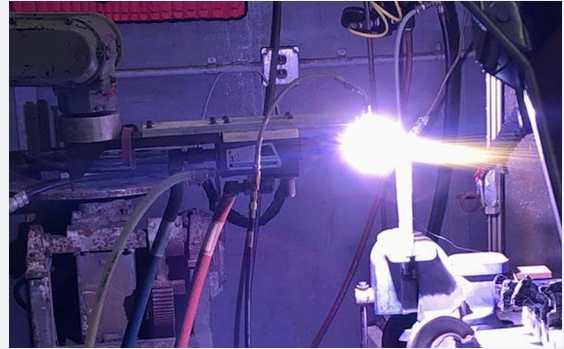


DeWAL® Plasma X™ Spray Trials

Stainless steel test coupons were used within the following conditions:

- Cleaned with ethanol
- Taped with three strips of 1" wide tape (10 - 11mils thick)
- Grit blasted with 80 mesh aluminum oxide at 58 - 60 PSI
- Test strips were stationary during the whole run and then placed into a plasma spray environment for preheating and coating.



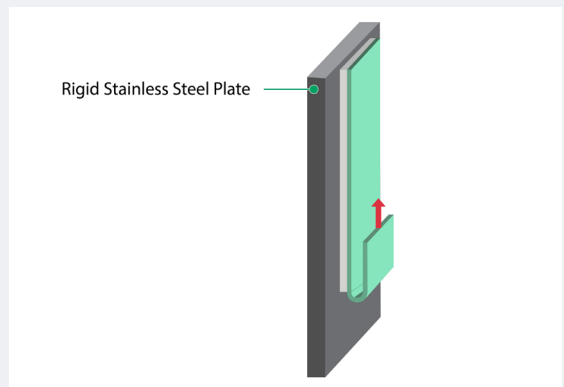
Controls	Preheat Conditions	Coating Conditions
Angle of Test Coupon	90°	90°
Distance from Test Coupon	3 - 5 inches	3 - 5 inches
†Gun Speed	700 mm/sec	700 mm/sec
†Gun Conditions	550 A & 65 V – 37.5 kW	550 A & 65 V – 37.5 kW
Primary Fuel	Argon @ 95 PSI	Argon @ 95 PSI
Secondary Fuel	Hydrogen @ 50 PSI	Hydrogen @ 50 PSI
Coating Material	-	Ceramic - Yttrium Stabilized Zirconia (YSZ)
Feed Rate	-	4 lb/hr

Note: An average of two preheat passes was completed. Coating conditions deposits .0005" (.0127mm) of coating per pass and an average of five passes was completed.

†9MB used for test conditions

Adhesion to Steel (180° Peel ASTM D1000):

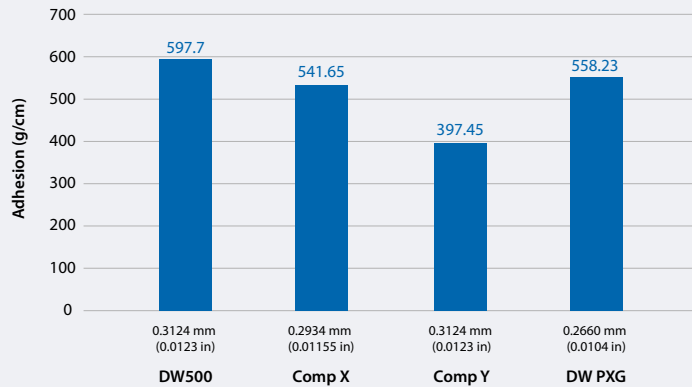
There are numerous manipulatable variables in this application. We opted to choose the variables listed above to push the products to their failure limits.



DeWAL® Plasma X™ Spray Trials

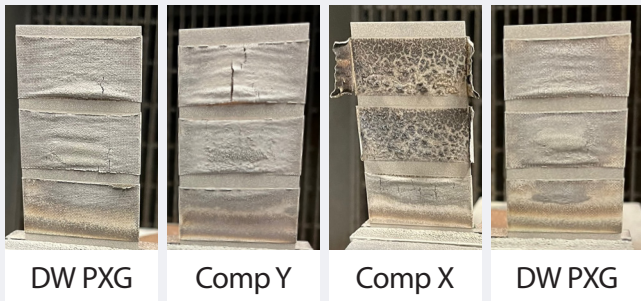
DeWAL® Plasma X™ tape (DW PXG) displayed excellent adhesion when compared to several competitive products, matching or outperforming their performance.

Average Adhesion to SS & Overall Thickness



Preliminary data used for DW PXG.

Post Coating to Failure, Tape Removal:

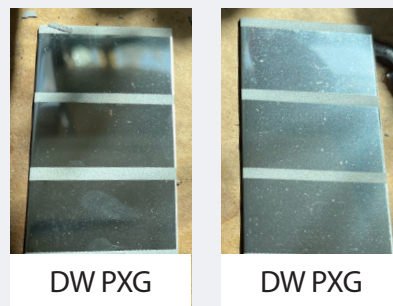
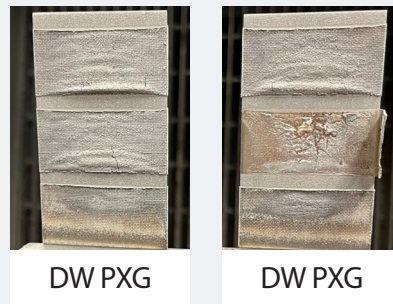


Taped coupons post coating



Coupons after tape removal

Multi-Lot Trialing:



Two separate lots of DeWAL Plasma X tape were trialed head-to-head at a 5" distance from the gun under the same conditions above.