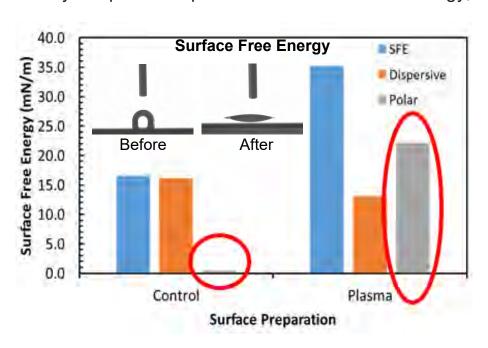
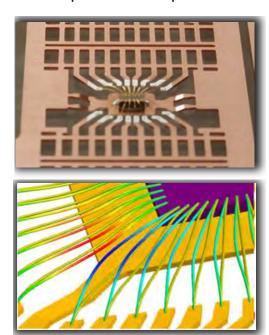


Surfx Electronics Packaging

Surface Treatment for Electronics

Our new argon plasma tool is fast and effective for cleaning and activating metals, plastics and wire leads. Surfx plasma is easily integrated into pre-die, pre-wire & pre-mold manufacturing processes. Surfx in-line plasma systems the treatment will be uniform and safe, Surfx will not harm or roughen the surface of your substrates. Surfx plasma provides fast, damage-free chemical treatment. No sputtering. modify the polar component of the surface free energy, not the dispersive component.

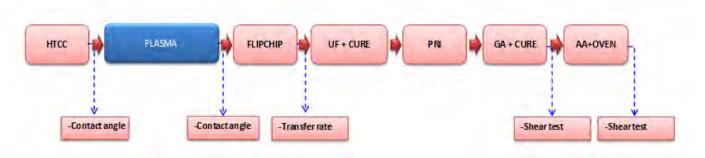




Surfx plasma was able to treat the substrate faster and for the flipchip bonding appliction to the right, the Surfx plasma shear strength was 3 times higher when tested after the under fill process.

Shear Test	Max	Min	Average	Specs
Control	5.123	4.139	4.616	1.5 Kg
Plasma	16.778	13.471	14.92	4.5 Kg

FOL PROCESS FLOW



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