

ADHESION TESTS WITH NUSIL CV2-2646 CONDUCTIVE SILICONE AND SP-120 PRIMER

SCIPP 2/27/01
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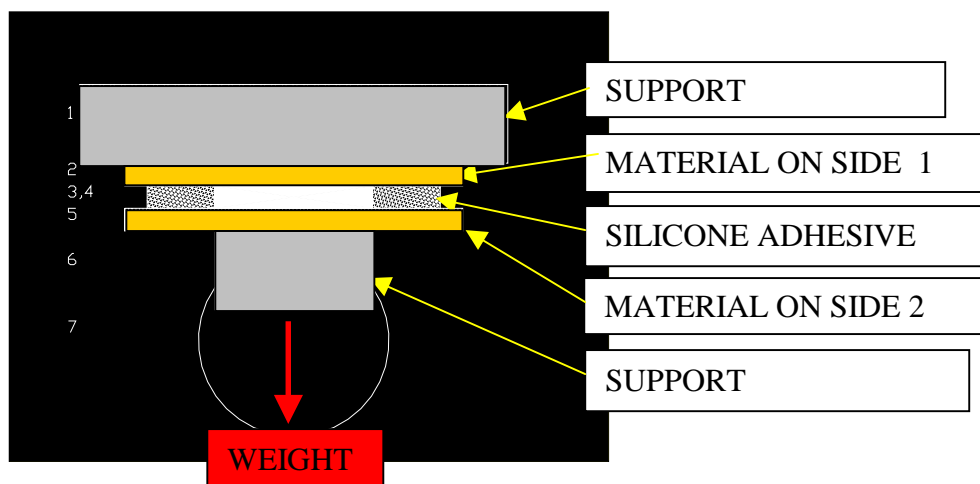
Introduction:

We assembled 6 test pieces with gold and aluminum surfaces. Half the pieces were prepared with Nusil SP-120 primer and the other half were not. After 1 month we performed pull tests normal to the glue joint and recorded the ultimate strength of bond. All the pieces had a 1 cm² and 150 micron thick adhesive. The 3 unprimed pieces broke at a force below 2 kg and the primed pieces never failed. Other parts of the testing fixture failed before the bond failed. Finally, we broke the primed pieces apart with tools. The silicon failed before the adhesive failed!!

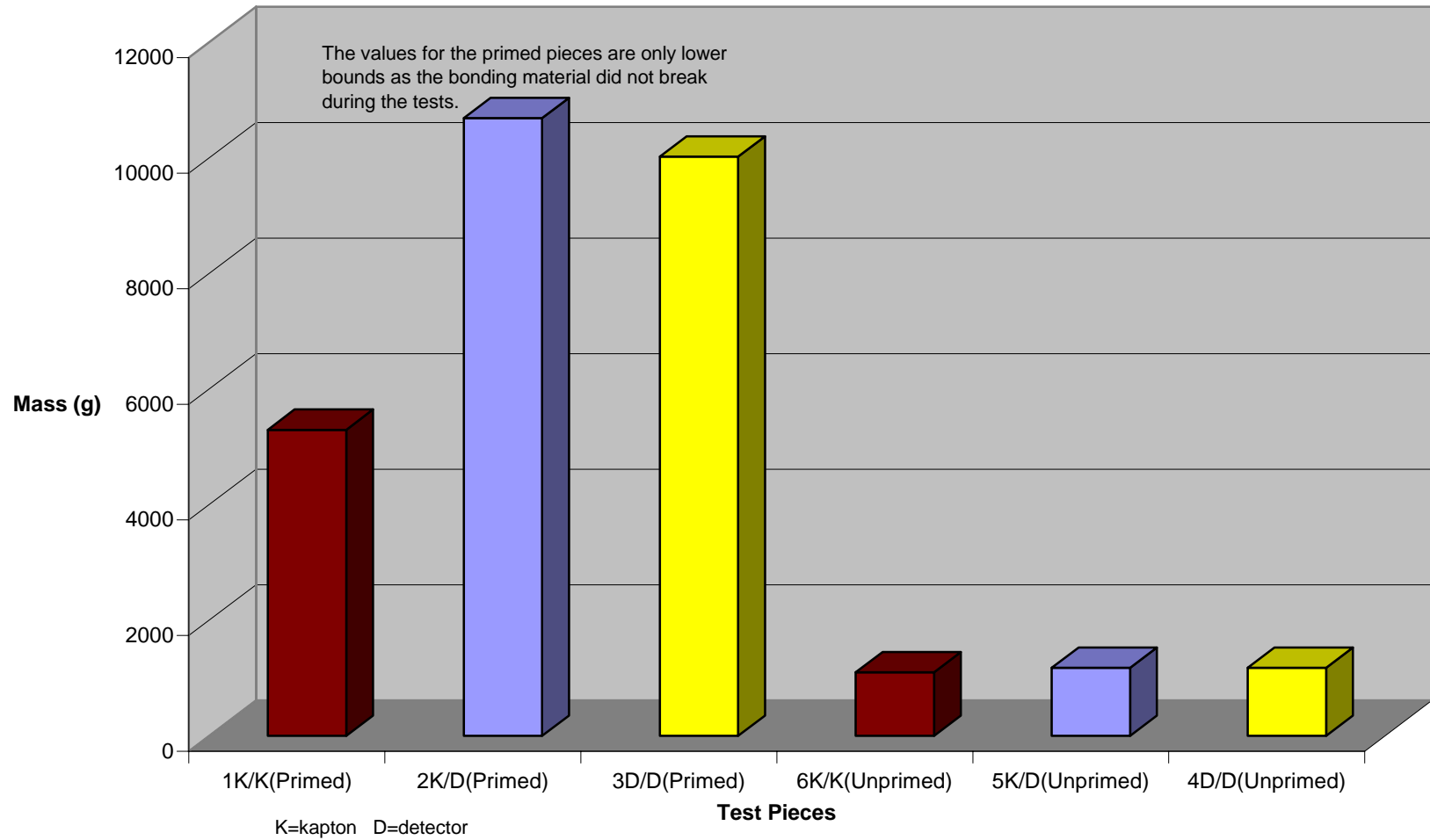
DESCRIPTION OF TEST PIECES

Name	Material On Side 1	Material OnSide 2	Primed ?
1	Kapton	Kapton	Yes
2	Kapton	Detector	Yes
3	Detector	Detector	Yes
4	Detector	Detector	No
5	Kapton	Kapton	No
6	Kapton	Detector	No

TEST SETUP



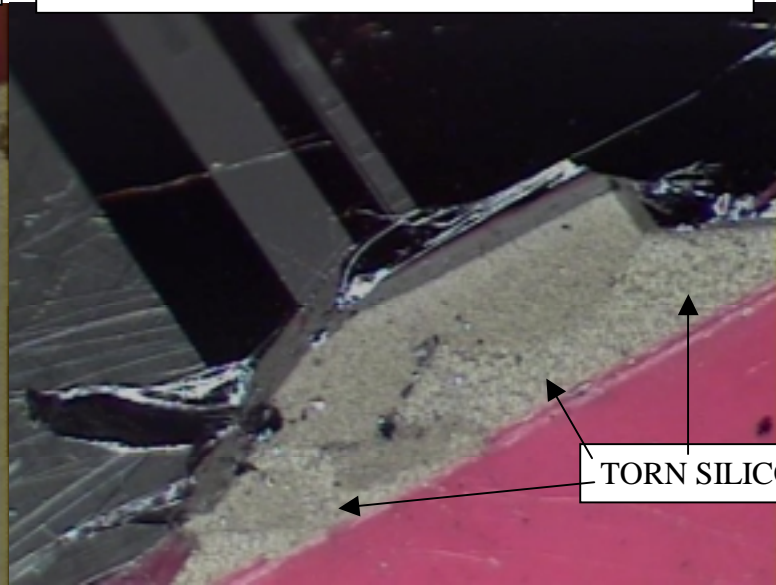
Strength Test for Conductive Silicone Bonding Material (NuSil CV2-2646)
Comparison of Primed vs. not Primed Surfaces



UNPRIMED, NOTICE NO TEARING OF SILICONE

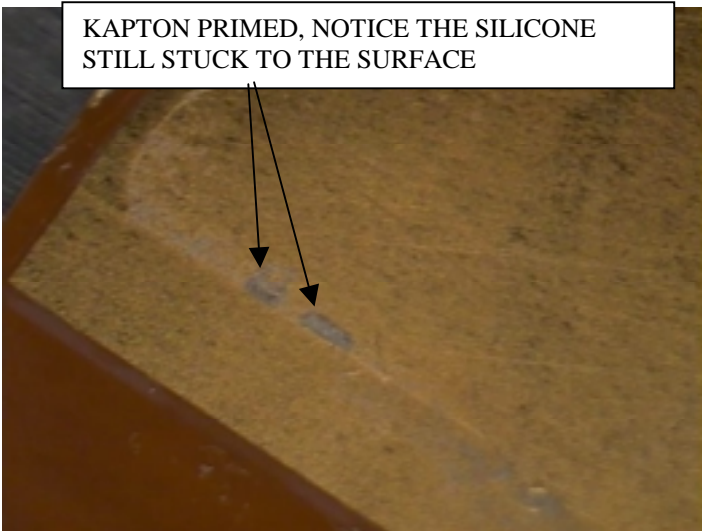


PRIMED, SILICONE TORE, DETECTOR SHATTERED



TORN SILICONE

KAPTON PRIMED, NOTICE THE SILICONE STILL STUCK TO THE SURFACE



PRIMED, "ITS HARD TO REMOVE THE DETECTOR, EVEN BY HAMMERING ON IT"

