Report

Temperature Soak Test - IDC Field Splice

Objective:

The objective of this temperature soak test is to observe and report characteristics of dielectric gel, part # 117-00477 used in IDC Field Splice kits, at -40 degrees and at 140 degree F.

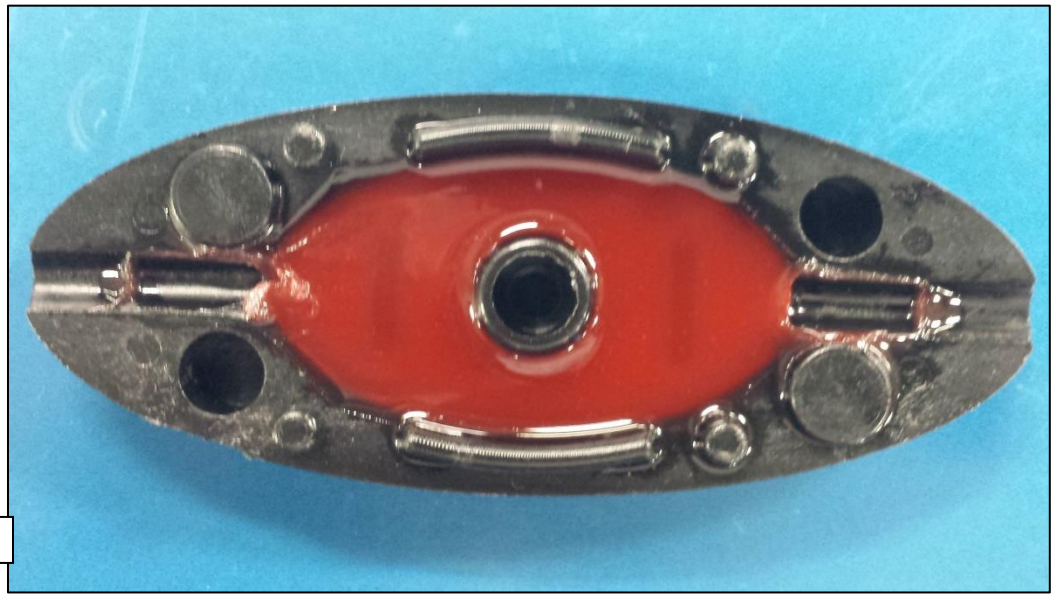
Method:

Cold temperature - Samples of IDC Field Splices were put in cold box at -40 degrees and held constant for 24 hours. Samples were removed from cold box after 24 hours and observations made.

High temperature - Samples were put in oven at 140 degree F and held constant for 24 hours. Samples were removed from oven after 24 hours and observations made.

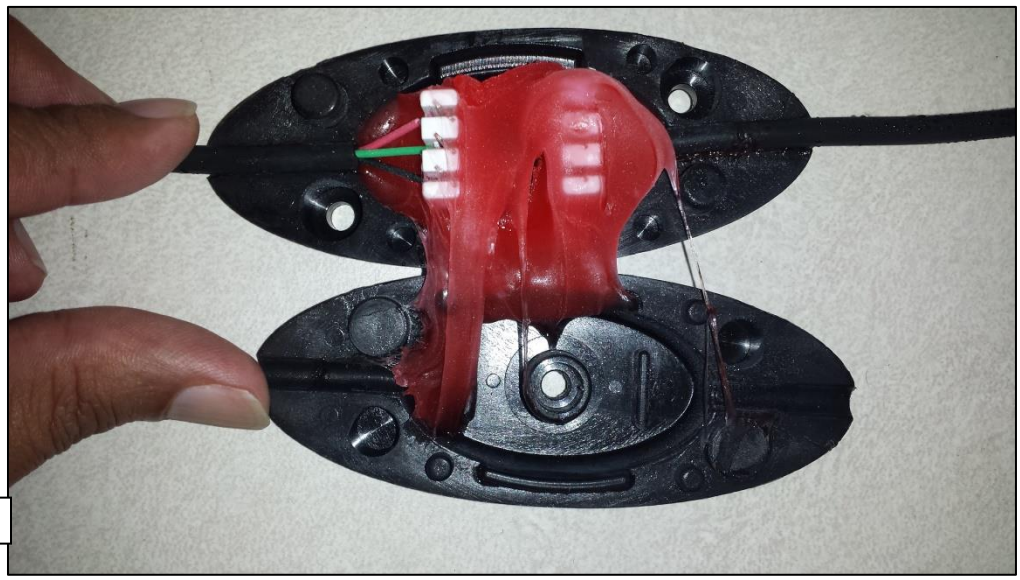
Observations:

1) Picture 1 below, shows Splices at -40 degrees. The dielectric gel remained unaffected. There was no visible change in color or texture. Gel was bonded well with the Splice cavity walls and connector.

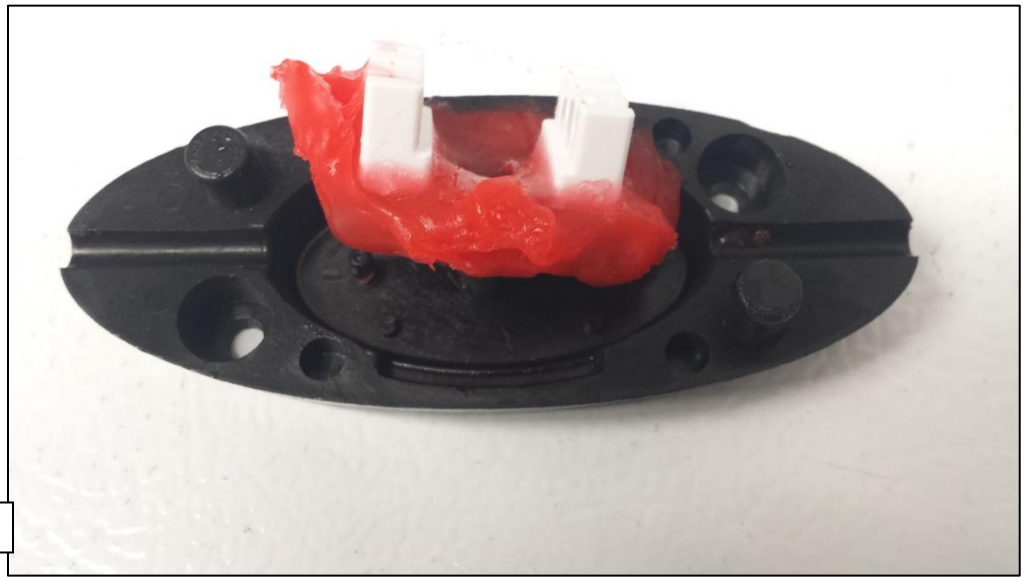


1

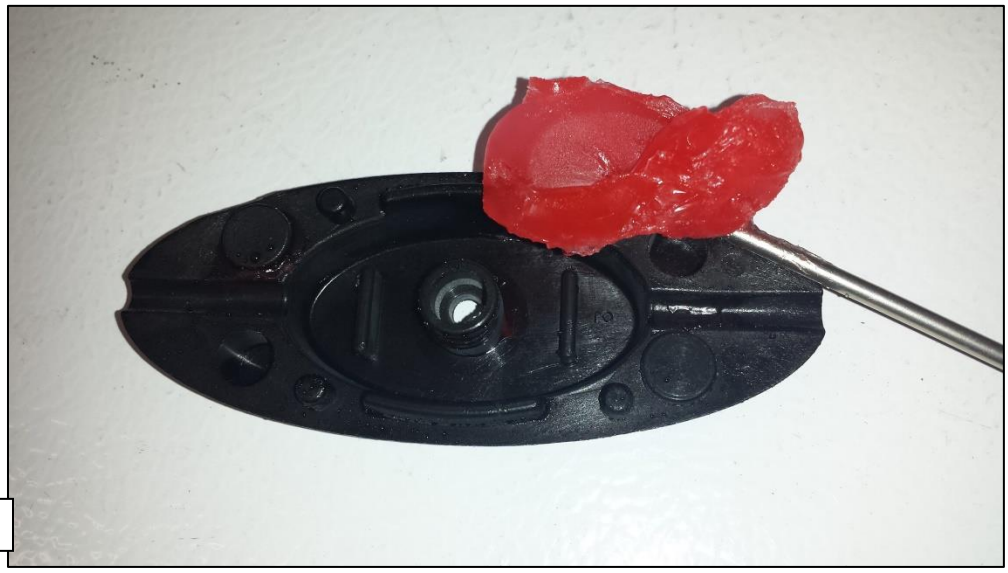
2) Picture 2 below, shows the elasticity of dielectric gel at -40 degrees. There was not observable difference in elasticity and elongation, however the gel tends to stay together and separate cleanly from the splice cavity wall as shown in picture 3 & 4.



2

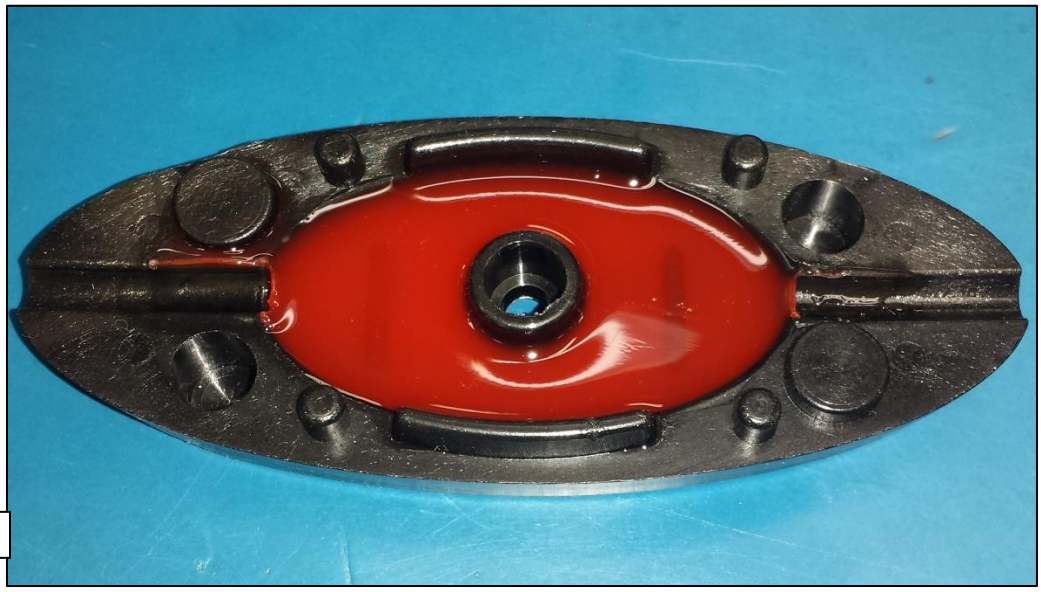


3



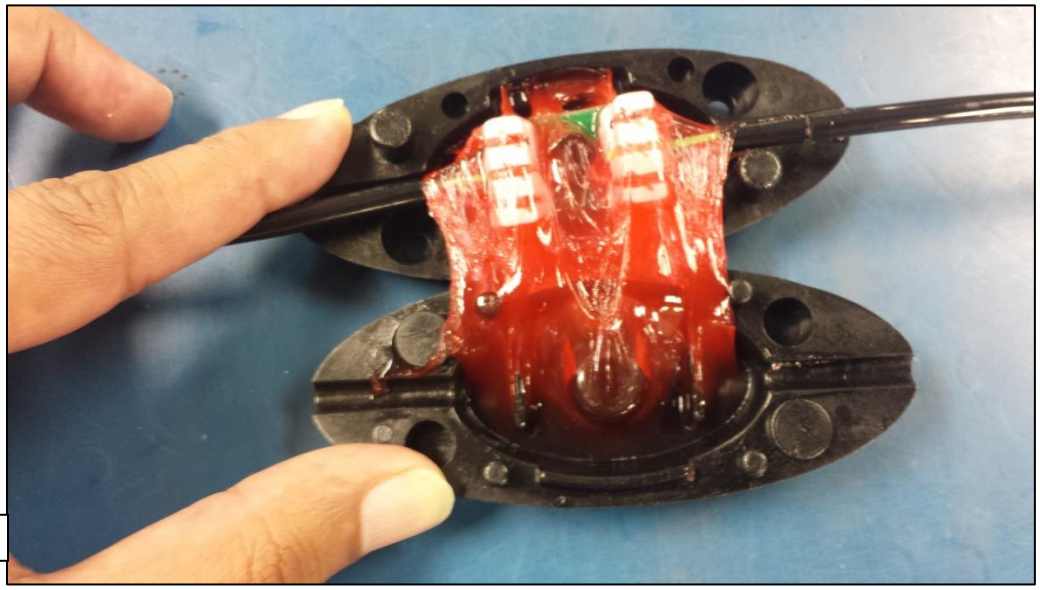
4

3) Picture 5 below, shows Splices at 140 degrees F. The dielectric gel remained unaffected. There was no visible change in color or texture. Gel was bonded well with the Splice cavity walls and connector.

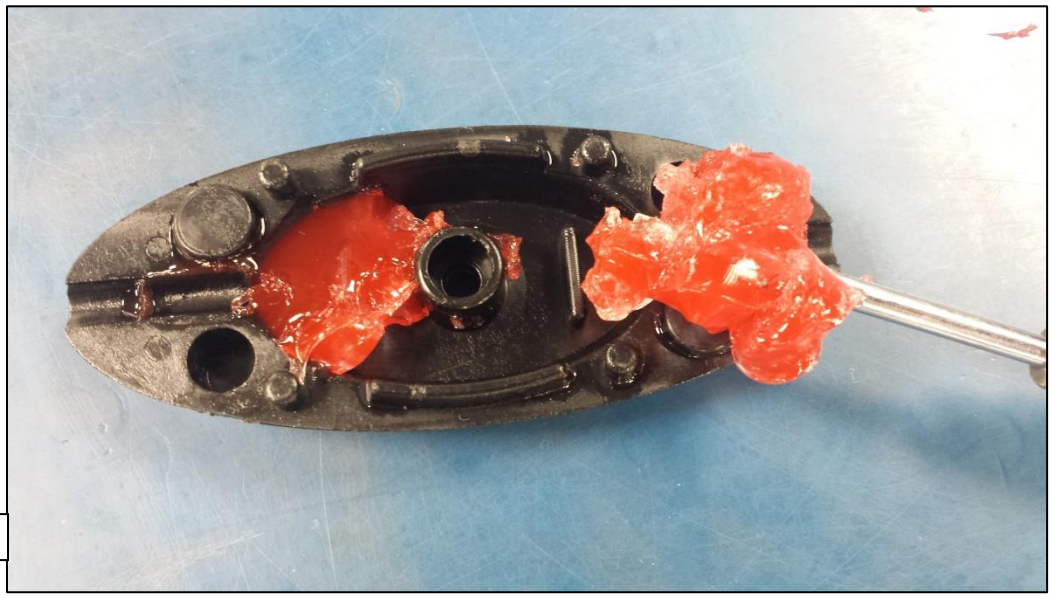


5

4) Picture 6 below, shows the elasticity of dielectric gel at 140 degrees F. There was not observable difference in elasticity and elongation. Gel tends to break in clumps as shown in pictures 7 & 8.



6



7

5) No fumes or odor from dielectric gel were observed at -40 degrees or 140 degrees F.

Conclusion:

The dielectric gel showed consistent physical characteristics at -40 deg. and 140 deg. F. Bonding with molded splice shells was acceptable. There was no noticeable difference in elastic and elongation of gel. Gel maintained its color consistency. Gel surface did not show voids or bubbles due to gassing.