



Project Case Study: Downhole Plug

Product Type:

Molded with metal insert

Industry / Application:

Oil & Gas

Challenge:

An oilfield customer approached Longwood regarding a problem they were experiencing with downhole plugs. All of their 4" plugs were able to pass the 1000 cycle test, however 5" plugs and above this size repeatedly failed the minimum cycle requirements.

Analysis:

Wabtec Elastomers Group approached the problem from three different angles. First, a comprehensive analysis and testing of the compound formulations. They also reviewed the metal inserts to identify any possible trouble points. Lastly, to develop a better understanding of the problem Longwood's engineering team traveled to the customer location so they could view the testing process and failures in person.

Solution:

The customer approved Longwood's recommended modifications to the compound and also to the metal insert designs. With these changes, several 5" + size plugs have now passed the testing requirements and production parts have been ordered. The customer now desires to develop its own compound and has given our test data and recommendations to their mixer. Lastly, the customer has also requested additional tests from Longwood engineering to identify other areas for improvement in compound molding and part design.

For more information on this and other case studies, please visit us on the web at: www.wabtecelastomers.com