

# OSCT Surveillance Panel Meeting Minutes

8/8/2007

**D. Bell**

## **Meeting Attendance:**

B. Grinfield (SWRI, phone)	D. Lind (TMC)
D. Bell (Afton)	S. Rea (Infineum)
J. Gropp (Lz)	J. Pole (American Axle)
D. Bartlett (Lz)	C. Prengaman (Lz)
D. Smith (Intertek Parc)	C. Koglin (Afton)
T. Marougy (Eaton)	F. Farber (TMC)
B. Koehler (SWRI)	J. D'Harte (American Axle)
J. Keiter (Lz, phone)	G. Greene (Lz)

## **Approval of 6/2007 Surveillance Panel Meeting Minutes**

A motion was passed unanimously (7 approved/0 opposed/0 abstention) to approve the June 22, 2007 OSCT Surveillance Panel meeting minutes that are available on the TMC website.

## **Status of OSCT ASTM D5662**

There are multiple baths available at both Lubrizol and SWRI with no known "stand" related problems or test severity issues.

## **Approval of Fluoroelastomer**

A new lot of Fluoroelastomer (FL371, 200 slabs) was approved at the June 22, 2007 OSCT Surveillance Panel meeting since all of the data fell well within the Shewhart severity limits in 160-1 and 161-1 reference oils. This lot of FL was released to the test labs by Test Engineering Institute for general use for ASTM D5662.

## **Approval of Polyacrylate**

A new lot of Polyacrylate (PA338, 300 slabs) have been shipped to Lz and SWRI for reference qualification testing.

### Elastomer Inventory

Current elastomer inventory is sufficient at both test labs:

	<u>Lot #</u>	<u>Lz</u>	<u>SWRI</u>
Polyacrylate	336	---	7
	337	98	102
	338	not yet qualified	
Fluoroelastomer	369	24	---
	370	---	65
	371	46	---
Nitrile	331	47	5
	332	20	110

### Bath Temperature Reporting

When the ASTM D5662 method was revised in 2006, the test temperature was inadvertently deleted upon removal of a table, so the test temperatures as shown below must be put back into the method. In addition, the Form 1 test report only shows the target test temperature in the upper right corner of the page with no indication of variation around the target, even though both labs have ability to log temperature every minute. The method needs updating to show that temperature variation outside of the test target temperature by more than +/-1°C will make the test invalid.

ASTM D5662 8.4.4 reads:

Place tubes randomly in oil bath capable of maintaining a test with temperature within +/- 1°C for a period of 240 +/- 0.5 hours.

Motion by F. Farber (2<sup>nd</sup> by T. Marougy): Add the following wording to 8.4.4:

Test oil temperature as measured by a thermocouple in a dummy tube containing bath oil and as determined from one minute samples is to be maintained as follows for the test to be operationally valid:

PA and FL: 150 +/- 1°C

NI: 100 +/-1°C

The motion was approved unanimously (7 approved/0 disapproved/0 abstentions). TMC will issue an information letter to add the approved changes to the ASTM D5662 method, as well as update the Form 1 test report and data dictionary accordingly.

### Potential New Elastomers for OSCT

I continue to survey the automotive gear industry to identify current applicable seals that come in contact with gear oils to potentially substitute or add more relevant seals for ASTM D5662 testing. Comments thus far from Ford, Bruss, and Federal Mogul on gear seals not tested per D5662 include:

- Peroxide-cured nitrile
- Aflas® (tetrafluoroethylene/propylene copolymer)

- Hydrogenated nitrile (HNBR)
- Ethylene-acrylic (AEM, Vamac)