

Oil Seal Compatibility Test (OSCT) Surveillance Panel Meeting Minutes

April 18, 2019

Don Bell

Participants via Webex:

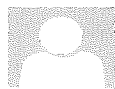
B. Grinfield (SWRI)	K. Gutierrez (Intertek)	D. Smith (Intertek)
A. Goyal (BASF)	W. Venhoff (Lz)	V. Donndelinger (Lz)
D. Beck (TMC)	D. Beck (TMC)	M. Lopez (Intertek)
D. Bell (Afton-Chairman)		

An OSCT Surveillance Panel Webex meeting was called to order by D. Bell at 1:03 pm on 4/18/2019.

The fluoroelastomer (FL) qualification status was reviewed as follows:

- FL404 or older: TEI verbally confirmed earlier in the day that they have 0 inventory
- FL405: TEI has 0 inventory, but Lab B has a small quantity of once approved slabs that have expired since they are beyond the 2 year maximum shelf life as per ASTM D5662. This prompted us to review the shelf life recommendations recently obtained from the seal manufacturer, Freudenberg, as per a motion at the 2/13/2019 OSCT meeting.

J. Bogart is TEI's contact at Freudenberg who supplies us with FL slabs. J. Bogart obtained the recommendation of 10 year maximum shelf life from internal elastomer chemists.



Wed 2/27/2019 11:49 AM

Bogart, Jeff <Jeff.Bogart@fnst.com>
[External Email]-RE: Fluoroelastomer

To: Bell, Don

Retention Policy Default Deletion Policy (If Ever)

Good morning Don,
I spoke with our chemist, he stated: High temperature resistance such as FKM the shelf life at most 10 years.

Thank you,
Jeff

The FL maximum shelf life of 10 years was confirmed with the follow-up note from Freudenberg's chief elastomer chemist, D. VanDyke, who is the expert on the D5662 seal production and chemistry.



Wed 3/6/2019 4:53 PM

VanDyke, David <David.VanDyke@fnst.com>

[External Email]-RE: seal shelf life

To: Bell, Don

Cc: Redd, Cammy; VanDyke, David

Retention Policy Default Deletion Policy (If ever)

You forwarded this message on 3/19/2019 9:18 AM.

Hi Don,

Sorry for the delay, I was out of the office last week.

In general, the shelf life of molded articles would definitely be longer than 2 Years.

There is some debate as to the maximum shelf life, depending on what resources you use (There is a Military spec, an ISO spec and, you cited, an ASTM spec)

To be safe for testing, I would use the following guidelines for parts or slabs molded from the compounds below:

TM1040-08D: This is a ACM Compound: We would recommend 7 Years Max .

TM1040-09D: This is a NBR Compound: We would recommend 3 Years Max.

TM1041-09D: I believe this is an FKM compound (LaGrange does not supply this): We would recommend 10 Years Max.

All of these shelf lives are extendable by up to 2 years with revalidation testing.

Also, please keep in mind that this is very dependent on storage:

Storage conditions

The storage temperature must be below 25 °C; the items must be stored away from sources of direct heat and must not be exposed to direct sunlight. The relative air humidity must be such that no condensation occurs when the temperature in the storage room changes. The effect of ozone and ionising radiation must always be excluded.

D. VanDyke commented that the 3-6°C refrigerator conditions in which we store the elastomer slabs is sufficient to allow maximum shelf life of the following:

- PA = 7 years
- FL = 10 years
- NI = 3 years

A motion made by D. Bell and 2nd by B. Grinfield was unanimously approved with 5 votes and no abstentions to extend the PA and FL shelf life from 2 year to 5 years maximum from the elastomer cure date. It was clarified that any prior lots of PA and FL that were approved and then expired only due to the 2 year shelf life are now approved up to the 5 year shelf life beyond the cure date. Therefore, FL405 is now approved for use until its 5 year shelf life is reached.

Lab B will ship the approved FL405 to Lab C to allow them to run qualification testing on FL407, 408 and 409.

Lab G has a sufficient quantity of approved FL to conduct qualification testing on FL407-409.

- FL406: Approved, but TEI has no slabs

- FL407: Lab G depleted their inventory of TMC 160-1, so it was agreed that both Labs C and G must conduct qualification testing of FL407 on 12 specimens TMC 171 and report results to TMC for approval.

		Lab B	Lab C	Lab G
160-1 Oil	Approval Run		133531-QSCT	
	Accompanying Reference		138334-QSCT	
169 Oil	Approval Run		135233-QSCT	135099-QSCT
	Accompanying Reference		138334-QSCT	135098-QSCT

- FL408: Both labs have elastomers for qualification testing in TMC 169 and 171
- FL409: Both labs have elastomers for qualification testing in TMC 169 and 171

The polyacrylate (PA) qualification status was also reviewed as follows:

- PA360: TEI has 42 approved slabs and both labs have ample inventory.
- PA361: TEI has 214 non-approved slabs. Initially rejected due to Lab B having unacceptable results, but now that Lab B is not participating, we request Lab C and G to conduct testing on 12 specimens in TMC 171 and Lab G to test with TMC 169 to complete the matrix below and submit results to TMC for approval.

PA361				
		Lab B	Lab C	Lab G
160-1 Oil	Approval Run	No longer participating		125833-QSCT
	Accompanying Reference			125848-QSCT
169 Oil	Approval Run		119393-QSCT	
	Accompanying Reference		122856-QSCT	

- PA362: Approved but TEI has no slabs.

- PA363: TEI has >200 non-approved slabs. In order to complete the matrix below, Lab G to complete qualification testing on 12 specimens in TMC 171.

PA363				
		Lab B	Lab C	Lab G
160-1 Oil	Approval Run			125857-OSCT
	Accompanying Reference			125857-OSCT
169 Oil	Approval Run	135210-OSCT	135228-OSCT	135094-OSCT
	Accompanying Reference	135211-OSCT	135211-OSCT	125857-OSCT
171 Oil	Approval Run		127592-OSCT	
	Accompanying Reference		136238-OSCT	

- PA364: In order to complete the matrix below, Lab G needs to complete qualification testing in TMC 171.

PA364				
		Lab B	Lab C	Lab G
171 Oil	Approval Run		135234-OSCT	
	Accompanying Reference		138338-OSCT	
169 Oil	Approval Run		138339-OSCT	135101-OSCT
	Accompanying Reference		138338-OSCT	135102-OSCT

- PA365 & 366: TEI has >200 non-approved slabs each, so both labs to run in 169 & 171

A motion made by D. Bell and 2nd by M. Lopez was unanimously approved with 5 votes to adjourn the OSCT Panel meeting at 1:15 pm on 4/18/2019.

Respectfully Submitted,



Donald Bell

OSCT Chairman