

## D xxxx – Engine Oil Elastomer Compatibility Form 1 – Validity Declaration

Version: EOEC VERSION 20040315 BETA  
 Conducted for: TSTSPON1  
 TSTSPON2

LABVALID	V = Valid
	I = Invalid

Elastomer Type	Bath Number	Elastomer Batch	Oilcode	CMIR	SOT Date	SOT Time	EOT Date	EOT Time
Nitrile	NBTHNUM	NEBCODE	OILCODE	NCMIR	NSDATE	NSTIME	NDTCOMP	NEOTTIM
Polyacrylate	PBTHNUM	PEBCODE		PCMIR	PSDATE	PSTIME	PDTCOMP	PEOTTIM
Fluoroelastomer	FBTHNUM	FEBCODE		FCMIR	FSDATE	FSTIME	FDTCOMP	FEOTTIM
Silicon	SBTHNUM	SEBCODE		SCMIR	SSDATE	SSTIME	SDTCOMP	SEOTTIM
Vamac	VBTHNUM	VEBCODE		VCMIR	VSDATE	VSTIME	VDTCOMP	VEOTTIM

Alternate Codes:	ALTCODE1	ALTCODE2	ALTCODE3
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In my opinion this test OPVALID been conducted in accordance with Test Method D xxxx and the appropriate amendments through the information letter system. The remarks on Form 7 describe any anomalies associated with this test.

Submitted By: SUBLAB  
 Testing Laboratory

SUBSIGIM  
 Signature

SUBNAME  
 Typed Name

SUBTITLE  
 Title

**D xxxx – Engine Oil Elastomer Compatibility  
Form 2 – Candidate Data**

Sample Code: OILCODE	Lab: LAB	EOT Date: DTCOMP Test Length: TESTLEN
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Elastomer Identification	TMC Identification	Parameter	Specification Limit	Acceptance Limits			Reference Result	Candidate Result
				Updated on: NTMCDATE				
Type:	Industry Oil:	Volume Change	+5% to -3%	NVLLIMIT1	To	NVLLIMIT2	RNVLAVG	NVLAVG
Nitrile	NIND	Hardness	+7 pts to -5 pts	NPHLIMIT1	To	NPHLIMIT2	RNPHAVG	NPHAVG
Batch:	CMIR:	Tensile Strength	+10% to -TMC 1006	NTSLIMIT1	To	NTSLIMIT2	RNTSAVG	NTSAVG
NEBCODE	NCMIR	Elongation	+10% to -TMC 1006	NELLIMIT1	To	NELLIMIT2	RNELAVG	NELAVG

Elastomer Identification	TMC Identification	Parameter	Specification Limit	Acceptance Limits			Reference Result	Candidate Result
				Updated on: PTMCDATE				
Type:	Industry Oil:	Volume Change	+5% to -3%	PVLLIMIT1	to	PVLLIMIT2	RPVLAVG	PVLAVG
Polyacrylate	PIND	Hardness	+8 pts to -5 pts	PPHLIMIT1	to	PPHLIMIT2	RPPHAVG	PPHAVG
Batch:	CMIR:	Tensile Strength	+18% to -15%	PTSLIMIT1	to	PTSLIMIT2	RPTSAVG	PTSAVG
PEBCODE	PCMIR	Elongation	+10% to -35%	PELLIMIT1	to	PELLIMIT2	RPELAVG	PELAVG

Elastomer Identification	TMC Identification	Parameter	Specification Limit	Acceptance Limits			Reference Result	Candidate Result
				Updated on: FTMCDATE				
Type:	Industry Oil:	Volume Change	+5% to -2%	FVLLIMIT1	to	FVLLIMIT2	RFVLAVG	FVLAVG
Fluoroelastomer	FIND	Hardness	+7 pts to -5 pts	FPHLIMIT1	to	FPHLIMIT2	RFPHAVG	FPHAVG
Batch:	CMIR:	Tensile Strength	+10% to -TMC 1006	FTSLIMIT1	to	FTSLIMIT2	RFTSAVG	FTSAVG
FEBCODE	FCMIR	Elongation	+10% to -TMC 1006	FELLIMIT1	to	FELLIMIT2	RFELAVG	FELAVG

Elastomer Identification	TMC Identification	Parameter	Specification Limit	Acceptance Limits			Reference Result	Candidate Result
				Updated on: STMCDATE				
Type:	Industry Oil:	Volume Change	+TMC 1006 to -3%	SVLLIMIT1	to	SVLLIMIT2	RSVLAVG	SVLAVG
Silicon	SIND	Hardness	+5 pts to -TMC 1006	SPHLIMIT1	to	SPHLIMIT2	RSPHAVG	SPHAVG
Batch:	CMIR:	Tensile Strength	+10% to -45%	STSLIMIT1	to	STSLIMIT2	RSTSAVG	STSAVG
SEBCODE	SCMIR	Elongation	+20% to -30%	SELLIMIT1	to	SELLIMIT2	RSELAVG	SELAVG

Elastomer Identification	TMC Identification	Parameter	Specification Limit	Acceptance Limits			Reference Result	Candidate Result
				Updated on: VTMCDATE				
Type:	Industry Oil:	Volume Change	Report	VVLLIMIT1	to	VVLLIMIT2	RVVLAVG	VVLAVG
Vamac	VIND	Hardness	Report	VPHLIMIT1	to	VPHLIMIT2	RVPHAVG	VPHAVG
Batch:	CMIR:	Tensile Strength	Report	VTSLIMIT1	to	VTSLIMIT2	RVTSAVG	VTSAVG
VEBCODE	VCMIR	Elongation	Report	VELLIMIT1	to	VELLIMIT2	RVELAVG	VELAVG

**D xxxx – Engine Oil Elastomer Compatibility  
Form 3 – Results Summary – Non-Reference Oil**

Sample Code: OILCODE Lab: LAB  
 Lab Oil Code: LABOCODE

Elastomer Type: NETYPE		Elastomer Batch Code: NEBCODE			
SOT Time:	NSTIME	EOT Time: NEOTIME			
SOT Date:	NSDATE	EOT Date: NDTCOMP	Bath Number: NBTNUM		
Test Temperature, °C	Test Duration, Hours	Volume Change, %	Hardness Change, Points	Tensile Strength Change, %	Elongation Change, %
NTSTTMP	NTESTLEN	NVL R001	NPH R001	NTS R001	NEL R001
		NVL R002	NPH R002	NTS R002	NEL R002
		NVL R003	NPH R003	NTS R003	NEL R003
		NVL R004	NPH R004	NTS R004	NEL R004
		NVL R005	NPH R005	NTS R005	NEL R005
		NVL R006	NPH R006	NTS R006	NEL R006
Average		NLAVG	NPHAVG	NTSAVG	NELAVG
Standard Deviation		NVSTDEV	NHSTDEV	NTSTDEV	NESTDEV

Elastomer Type: PETYPE		Elastomer Batch Code: PEBCODE			
SOT Time:	PSTIME	EOT Time: PEOTIME			
SOT Date:	PSDATE	EOT Date: PDTCOMP	Bath Number: PBTHNUM		
PTSTTMP	PTESTLEN	PVL R001	PPH R001	PTS R001	PEL R001
		PVL R002	PPH R002	PTS R002	PEL R002
		PVL R003	PPH R003	PTS R003	PEL R003
		PVL R004	PPH R004	PTS R004	PEL R004
		PVL R005	PPH R005	PTS R005	PEL R005
		PVL R006	PPH R006	PTS R006	PEL R006
Average		PVAVG	PPHAVG	PTSAVG	PELAVG
Standard Deviation		PVSTDEV	PHSTDEV	PTSTDEV	PESTDEV

Elastomer Type: FETYPE		Elastomer Batch Code: FEBCODE			
SOT Time:	FSTIME	EOT Time: FEOTIME			
SOT Date:	FSDATE	EOT Date: FDTCOMP	Bath Number: FBTHNUM		
FTSTTMP	FTESTLEN	FVL R001	FPH R001	FTS R001	FEL R001
		FVL R002	FPH R002	FTS R002	FEL R002
		FVL R003	FPH R003	FTS R003	FEL R003
		FVL R004	FPH R004	FTS R004	FEL R004
		FVL R005	FPH R005	FTS R005	FEL R005
		FVL R006	FPH R006	FTS R006	FEL R006
Average		FVAVG	FPHAVG	F TSAVG	FELAVG
Standard Deviation		FVSTDEV	FHSTDEV	FTSTDEV	FESTDEV

Elastomer Type: SETYPE		Elastomer Batch Code: SEBCODE			
SOT Time:	SSTIME	EOT Time: SEOTIME			
SOT Date:	SSDATE	EOT Date: SDTCOMP	Bath Number: SBTHNUM		
STSTTMP	STESTLEN	SVL R001	SPH R001	STS R001	SEL R001
		SVL R002	SPH R002	STS R002	SEL R002
		SVL R003	SPH R003	STS R003	SEL R003
		SVL R004	SPH R004	STS R004	SEL R003
		SVL R005	SPH R005	STS R005	SEL R003
		SVL R006	SPH R006	STS R006	SEL R003
Average		SVAVG	SPHAVG	STSAVG	SELAVG
Standard Deviation		SVSTDEV	SHSTDEV	STSTDEV	SESTDEV

**D xxxx – Engine Oil Elastomer Compatibility  
Form 4 – Results Summary – Non-Reference Oil - Yamac**

Sample Code: OILCODE	Lab: LAB
Lab Oil Code: LABOCODE	

Elastomer Type: VETYPE		Elastomer Batch Code: VEBCODE			
SOT Time: VSTIME	EOT Time: VEOTTIME	Bath Number: VBTHNUM			
SOT Date: VSDATE	EOT Date: VDTCOMP				
Test Temperature, °C	Test Duration, Hours	Volume Change, %	Hardness Change, Points	Tensile Strength Change, %	Elongation Change, %
VTSTTMP	VTSTLEN	VVL R001	VPH R001	VTS R001	VEL R001
		VVL R002	VPH R002	VTS R002	VEL_R002
		VVL R003	VPH R003	VTS R003	VEL_R003
		VVL R004	VPH R004	VTS R004	VEL_R004
		VVL R005	VPH R005	VTS R005	VEL_R005
		VVL R006	VPH R006	VTS R006	VEL_R006
Average		VVLAVG	VPHA VG	VTS AVG	VEL AVG
Standard Deviation		VVSTDEV	VHSTDEV	VTSTDEV	VESTDEV

**D xxxx – Engine Oil Elastomer Compatibility  
Form 5 – Results Summary – Reference Oil**

Lab Oil Code: LABOCODE

Lab: LAB

CMIR: NCMIR		TMC Industry Oil Code: NIND			
Elastomer Type: RNETYPE		Elastomer Batch Code: RNEBCODE			
SOT Time: RNSTIME	EOT Time: RNEOTIME	Bath Number: RNBTNUM			
SOT Date: RNSDATE	EOT Date: RNDTCOMP				
Test Temperature, °C	Test Duration, Hours	Volume Change, %	Hardness Change, Points	Tensile Strength Change, %	Elongation Change, %
RNTSTTMP	RNTSTLEN	RNVLR001	RNPHR001	RNTSR001	RNELR001
		RNVLR002	RNPHR002	RNTSR002	RNELR002
		RNVLR003	RNPHR003	RNTSR003	RNELR003
		RNVLR004	RNPHR004	RNTSR004	RNELR004
		RNVLR005	RNPHR005	RNTSR005	RNELR005
		RNVLR006	RNPHR006	RNTSR006	RNELR006
Average	RNVLAVG	RNVSTDEV	RNPHAVG	RNTSAVG	RNELAVG
Standard Deviation			RNHSTDEV	RNTSTDEV	RNESTDEV

CMIR: PCMIR		TMC Industry Oil Code: PIND			
Elastomer Type: RPEETYPE		Elastomer Batch Code: RPEBCODE			
SOT Time: RPSTIME	EOT Time: RPEOTIME	Bath Number: RPBTNUM			
SOT Date: RPSDATE	EOT Date: RPDTCOMP				
RPTSTTMP	RPTSTLEN	RPVLR001	RPPHR001	RPTSR001	RPELR001
		RPVLR002	RPPHR002	RPTSR002	RPELR002
		RPVLR003	RPPHR003	RPTSR003	RPELR003
		RPVLR004	RPPHR004	RPTSR004	RPELR004
		RPVLR005	RPPHR005	RPTSR005	RPELR005
		RPVLR006	RPPHR006	RPTSR006	RPELR006
Average	RPVLAVG	RPVSTDEV	RPPHAVG	RPTS AVG	RPELAVG
Standard Deviation			RPHSTDEV	RPTSTDEV	RPESTDEV

CMIR: FCMIR		TMC Industry Oil Code: FIND			
Elastomer Type: RFEEETYPE		Elastomer Batch Code: RFEBBCODE			
SOT Time: RFSTIME	EOT Time: RFEOOTIME	Bath Number: RFBTNUM			
SOT Date: RFSDATE	EOT Date: RFDTCOMP				
RFTSTTMP	RFTSTLEN	RFVLR001	RFPHR001	RFTSR001	RFELR001
		RFVLR002	RFPHR002	RFTSR002	RFELR002
		RFVLR003	RFPHR003	RFTSR003	RFELR003
		RFVLR004	RFPHR004	RFTSR004	RFELR004
		RFVLR005	RFPHR005	RFTSR005	RFELR005
		RFVLR006	RFPHR006	RFTSR006	RFELR006
Average	RFVLAVG	RFVSTDEV	RFPHAVG	RFTSAVG	RFELAVG
Standard Deviation			RFHSTDEV	RFTSTDEV	RFESTDEV

CMIR: SCMIR		TMC Industry Oil Code: SIND			
Elastomer Type: RSEETYPE		Elastomer Batch Code: RSEBCODE			
SOT Time: RSSTIME	EOT Time: RSEOTIME	Bath Number: RSBTNUM			
SOT Date: RSSDATE	EOT Date: RSDTCOMP				
RSTSTTMP	RSTSTLEN	RSVLR001	RSPHR001	RSTSR001	RSELR001
		RSVLR002	RSPHR002	RSTSR002	RSELR002
		RSVLR003	RSPHR003	RSTSR003	RSELR003
		RSVLR004	RSPHR004	RSTSR004	RSELR004
		RSVLR005	RSPHR005	RSTSR005	RSELR005
		RSVLR006	RSPHR006	RSTSR006	RSELR006
Average	RSVLAVG	RSVSTDEV	RSPHAVG	RSTSAVG	RSELAVG
Standard Deviation			RSHSTDEV	RSTSTDEV	RSESTDEV

**D xxxx – Engine Oil Elastomer Compatibility  
Form 6 – Results Summary – Reference Oil - Yamac**

Lab Oil Code: LABOCODE \_\_\_\_\_ Lab: LAB \_\_\_\_\_

CMIR: VCMIR		TMC Industry Oil Code: VINDD			
Elastomer Type: RVETYPE		Elastomer Batch Code: RVEBCODE			
SOT Time: RVSTIME	RVSTIME	EOT Time: RVEOTIME	Bath Number: RVBTHNUM		
SOT Date: RVSDATE	RVSDATE	EOT Date: RVDTCOMP			
Test Temperature, °C	Test Duration, Hours	Volume Change, %	Hardness Change, Points	Tensile Strength Change, %	Elongation Change, %
RVSTTMP	RVSTLEN	RVVLR001	RVPHR001	RVTSR001	RVELR001
		RVVLR002	RVPHR002	RVTSR002	RVELR002
		RVVLR003	RVPHR003	RVTSR003	RVELR003
		RVVLR004	RVPHR004	RVTSR004	RVELR004
		RVVLR005	RVPHR005	RVTSR005	RVELR005
		RVVLR006	RVPHR006	RVTSR006	RVELR006
Average		RVVLAVG	RVPHA VG	RVTSAVG	RVELAVG
Standard Deviation		RVVSTDEV	RVHSTDEV	RVTSTDEV	RVESTDEV

