D 7216 – Engine Oil Elastomer Compatibility (Annex A2 – Light-Duty Elastomers)
Form 1 – Validity Declaration

Version: LDEOC VERSION 20200727 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
Silicone	SBTHNUM	SEBCODE		SCMIR	SSDATE	SSTIME	SDTCOMP	SEOTTIM
Ethylene Acrylate	ABTHNUM	AEBCODE		ACMIR	ASDATE	ASTIME	ADTCOMP	AEOTTIM

Alternate Codes:	ALTCODE1	ALTCODE2	ALTCODE3

In my opinion this test OPVALID been conducted in accordance with Test Method D 7216, Annex A2, 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 7216 – Engine Oil Elastomer Compatibility (Annex A2 – Light-Duty Elastomers) Form 2 – Candidate Data

Sample Code: OILCODE	Lab: LAB	EOT Date: DTCOMP
Test Method Version: METHVER		Test Length: TESTLEN

Elastomer Identification	TMC Identification	Parameter	Reference Result	Candidate Result
Type:	Industry Oil:	Volume Change	RNVLFNL	NVLFNL
Nitrile	NIND	Hardness	RNPHFNL	NPHFNL
Batch:	CMIR:	Tensile Strength	RNTSFNL	NTSFNL
NEBCODE	NCMIR			

Elastomer Identification	TMC Identification	Parameter	Reference Result	Candidate Result
Type:	Industry Oil:	Volume Change	RPVLFNL	PVLFNL
Polyacrylate	PIND	Hardness	RPPHFNL	PPHFNL
Batch:	CMIR:	Tensile Strength	RPTSFNL	PTSFNL
PEBCODE	PCMIR			

Elastomer Identification	TMC Identification	Parameter	Reference Result	Candidate Result
Type:	Industry Oil:	Volume Change	RFVLFNL	FVLFNL
Fluoroelastomer	FIND	Hardness	RFPHFNL	FPHFNL
Batch:	CMIR:	Tensile Strength	RFTSFNL	FTSFNL
FEBCODE	FCMIR			

Elastomer Identification	TMC Identification	Parameter	Reference Result	Candidate Result
Type:	Industry Oil:	Volume Change	RSVLFNL	SVLFNL
Silicone	SIND	Hardness	RSPHFNL	SPHFNL
Batch:	CMIR:	Tensile Strength	RSTSFNL	STSFNL
SEBCODE	SCMIR			

Elastomer Identification	TMC Identification	Parameter	Reference Result	Candidate Result
Type:	Industry Oil:	Volume Change	RAVLFNL	AVLFNL
Ethylene Acrylate	AIND	Hardness	RAPHFNL	APHFNL
Batch:	CMIR:	Tensile Strength	RATSFNL	ATSFNL
AEBCODE	ACMIR			

D 7216 – Engine Oil Elastomer Compatibility (Annex A2 – Light-Duty Elastomers)

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: NEOTTIME			
SOT Date: NSDATE		EOT Date: NDTCOMP		Bath Number: NBTHNUM	
Test Temperature, °C	Test Duration, Hours	Volume Change, %	Hardness Change, Points	Tensile Strength Change, %	
NTSTTMP	NTESTLEN	NVL_R001	NPH_R001	NTS_R001	
		NVL_R002	NPH_R002	NTS_R002	
		NVL_R003	NPH_R003	NTS_R003	
		NVL_R004	NPH_R004	NTS_R004	
		NVL_R005	NPH_R005	NTS_R005	
		NVL_R006	NPH_R006	NTS_R006	
Average		NVLAVG	NPHAVG	NTSAVG	
Correction Factor		NVLCOR	NPHCOR	NTSCOR	
Corrected Average		NVLFNL	NPHFNL	NTSFNL	
Standard Deviation		NVSTDEV	NHSTDEV	NTSTDEV	

Elastomer Type: PETYPE			Elastomer Batch Code: PEBCODE		
SOT Time: PSTIME		EOT Time: PEOTTIME			
SOT Date: PSDATE		EOT Date: PDTCOMP		Bath Number: PBTHNUM	
Test Temperature, °C	Test Duration, Hours	Volume Change, %	Hardness Change, Points	Tensile Strength Change, %	
PTSTTMP	PTESTLEN	PVL_R001	PPH_R001	PTS_R001	
		PVL_R002	PPH_R002	PTS_R002	
		PVL_R003	PPH_R003	PTS_R003	
		PVL_R004	PPH_R004	PTS_R004	
		PVL_R005	PPH_R005	PTS_R005	
		PVL_R006	PPH_R006	PTS_R006	
Average		PVLAVG	PPHAVG	PTSAVG	
Correction Factor		PVLCOR	PPHCOR	PTSCOR	
Corrected Average		PVLFNL	PPHFNL	PTSFNL	
Standard Deviation		PVSTDEV	PHSTDEV	PTSTDEV	

Elastomer Type: FETYPE			Elastomer Batch Code: FEBCODE		
SOT Time: FSTIME		EOT Time: FEOTTIME			
SOT Date: FSDATE		EOT Date: FDTCOMP		Bath Number: FBTHNUM	
Test Temperature, °C	Test Duration, Hours	Volume Change, %	Hardness Change, Points	Tensile Strength Change, %	
FTSTTMP	FTESTLEN	FVL_R001	FPH_R001	FTS_R001	
		FVL_R002	FPH_R002	FTS_R002	
		FVL_R003	FPH_R003	FTS_R003	
		FVL_R004	FPH_R004	FTS_R004	
		FVL_R005	FPH_R005	FTS_R005	
		FVL_R006	FPH_R006	FTS_R006	
Average		FVLAVG	FPHAVG	FTSAVG	
Correction Factor		FVLCOR	FPHCOR	FTSCOR	
Corrected Average		FVLFNL	FPHFNL	FTSFNL	
Standard Deviation		FVSTDEV	FHSTDEV	FTSTDEV	

D 7216 – Engine Oil Elastomer Compatibility (Annex A2 – Light-Duty Elastomers)

Form 4 – Results Summary – Non-Reference Oil

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

Elastomer Type: SETYPE			Elastomer Batch Code: SEBCODE		
SOT Time: SSTIME		EOT Time: SEOTTIME			
SOT Date: SSDATE		EOT Date: SDTCOMP		Bath Number: SBTHNUM	
Test Temperature, °C	Test Duration, Hours	Volume Change, %	Hardness Change, Points	Tensile Strength Change, %	
STSTTMP	STESTLEN	SVL_R001	SPH_R001	STS_R001	
		SVL_R002	SPH_R002	STS_R002	
		SVL_R003	SPH_R003	STS_R003	
		SVL_R004	SPH_R004	STS_R004	
		SVL_R005	SPH_R005	STS_R005	
		SVL_R006	SPH_R006	STS_R006	
Average		SVLAVG	SPHAVG	STSAVG	
Correction Factor		SVLCOR	SPHCOR	STSCOR	
Corrected Average		SVLFNL	SPHFNL	STSFNL	
Standard Deviation		SVSTDEV	SHSTDEV	STSTDEV	

Elastomer Type: AETYPE			Elastomer Batch Code: AEBCODE		
SOT Time: ASTIME		EOT Time: AEOTTIME			
SOT Date: ASDATE		EOT Date: ADTCOMP		Bath Number: ABTHNUM	
Test Temperature, °C	Test Duration, Hours	Volume Change, %	Hardness Change, Points	Tensile Strength Change, %	
ATSTTMP	ATESTLEN	AVL_R001	APH_R001	ATS_R001	
		AVL_R002	APH_R002	ATS_R002	
		AVL_R003	APH_R003	ATS_R003	
		AVL_R004	APH_R004	ATS_R004	
		AVL_R005	APH_R005	ATS_R005	
		AVL_R006	APH_R006	ATS_R006	
Average		AVLAVG	APHAVG	ATSAVG	
Correction Factor		AVLCOR	APHCOR	ATSCOR	
Corrected Average		AVLFNL	APHFNL	ATSFNL	
Standard Deviation		AVSTDEV	AHSTDEV	ATSTDEV	

D 7216 – Engine Oil Elastomer Compatibility (Annex A2 – Light-Duty Elastomers)

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			
SOT Date: RNSDATE		EOT Date: RNDTCOMP		Bath Number: RNBTHNUM	
Test Temperature, °C	Test Duration, Hours	Volume Change, %	Hardness Change, Points	Tensile Strength Change, %	
RNTSTTMP	RNTSTLEN	RNVLR001	RNPHR001	RNTSR001	
		RNVLR002	RNPHR002	RNTSR002	
		RNVLR003	RNPHR003	RNTSR003	
		RNVLR004	RNPHR004	RNTSR004	
		RNVLR005	RNPHR005	RNTSR005	
		RNVLR006	RNPHR006	RNTSR006	
Average		RNVLAVG	RNPHAVG	RNTSAVG	
Correction Factor		RNVLCOR	RNPHCOR	RNTSCOR	
Corrected Average		RNVLFNL	RNPHFNL	RNTSFNL	
Standard Deviation		RNVSTDEV	RNHSTDEV	RNTSTDEV	

CMIR: PCMIR			TMC Industry Oil Code: PIND		
Elastomer Type: RPETYPE			Elastomer Batch Code: RPEBCODE		
SOT Time: RPSTIME		EOT Time: RPEOTIME			
SOT Date: RPSDATE		EOT Date: RPDTCOMP		Bath Number: RPBTHNUM	
Test Temperature, °C	Test Duration, Hours	Volume Change, %	Hardness Change, Points	Tensile Strength Change, %	
RPTSTTMP	RPTSTLEN	RPVLR001	RPPHR001	RPTSR001	
		RPVLR002	RPPHR002	RPTSR002	
		RPVLR003	RPPHR003	RPTSR003	
		RPVLR004	RPPHR004	RPTSR004	
		RPVLR005	RPPHR005	RPTSR005	
		RPVLR006	RPPHR006	RPTSR006	
Average		RPVLAVG	RPPHAVG	RPTSAVG	
Correction Factor		RPVLCOR	RPPHCOR	RPTSCOR	
Corrected Average		RPVLFNL	RPPHFNL	RPTSFNL	
Standard Deviation		RPVSTDEV	RPHSTDEV	RPTSTDEV	

CMIR: FCMIR			TMC Industry Oil Code: FIND		
Elastomer Type: RFETYPE			Elastomer Batch Code: RFEBCODE		
SOT Time: RFSTIME		EOT Time: RFEOTIME			
SOT Date: RFSDATE		EOT Date: RFDTCOMP		Bath Number: RFBTHNUM	
Test Temperature, °C	Test Duration, Hours	Volume Change, %	Hardness Change, Points	Tensile Strength Change, %	
RFTSTTMP	RFTSTLEN	RFVLR001	RFPHR001	RFTSR001	
		RFVLR002	RFPHR002	RFTSR002	
		RFVLR003	RFPHR003	RFTSR003	
		RFVLR004	RFPHR004	RFTSR004	
		RFVLR005	RFPHR005	RFTSR005	
		RFVLR006	RFPHR006	RFTSR006	
Average		RFVLAVG	RFPHAVG	RFTSAVG	
Correction Factor		RFVLCOR	RFPHCOR	RFTSCOR	
Corrected Average		RFVLFNL	RFPHFNL	RFTSFNL	
Standard Deviation		RFVSTDEV	RFHSTDEV	RFTSTDEV	

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Form 6 – Results Summary – Reference Oil

Lab Oil Code: LABOCODE	Lab: LAB

CMIR:	SCMIR		TMC Industry Oil Code:	SIND	
Elastomer Type:	RSETYPE		Elastomer Batch Code:	RSEBCODE	
SOT Time:	RSSTIME	EOT Time:	RSEOTIME		
SOT Date:	RSSDATE	EOT Date:	RSDTCOMP	Bath Number:	RSBTHNUM

Test Temperature, °C	Test Duration, Hours	Volume Change, %	Hardness Change, Points	Tensile Strength Change, %	
RSTSTTMP	RSTSTLEN	RSVLR001	RSPHR001	RSTSR001	
		RSVLR002	RSPHR002	RSTSR002	
		RSVLR003	RSPHR003	RSTSR003	
		RSVLR004	RSPHR004	RSTSR004	
		RSVLR005	RSPHR005	RSTSR005	
		RSVLR006	RSPHR006	RSTSR006	
Average		RSVLAVG	RSPHAVG	RSTSAVG	
Correction Factor		RSVLCOR	RSPHCOR	RSTSCOR	
Corrected Average		RSVLFNL	RSPHFNL	RSTSFNL	
Standard Deviation		RSVSTDEV	RSHSTDEV	RSTSTDEV	

CMIR:	ACMIR		TMC Industry Oil Code:	AIND	
Elastomer Type:	RAETYPE		Elastomer Batch Code:	RAEBCODE	
SOT Time:	RASTIME	EOT Time:	RAEOTIME		
SOT Date:	RASDATE	EOT Date:	RADTCOMP	Bath Number:	RABTHNUM

Test Temperature, °C	Test Duration, Hours	Volume Change, %	Hardness Change, Points	Tensile Strength Change, %	
RATSTTMP	RATSTLEN	RAVLR001	RAPHR001	RATSR001	
		RAVLR002	RAPHR002	RATSR002	
		RAVLR003	RAPHR003	RATSR003	
		RAVLR004	RAPHR004	RATSR004	
		RAVLR005	RAPHR005	RATSR005	
		RAVLR006	RAPHR006	RATSR006	
Average					
Correction Factor					
Corrected Average		RAVLFNL	RAPHFNL	RATSFNL	
Standard Deviation		RAVSTDEV	RAHSTDEV	RATSTDEV	

D 7216 – Engine Oil Elastomer Compatibility (Annex A2 – Light-Duty Elastomers)
Form 7 – Comments

Sample Code: OILCODE	Lab: LAB	EOT Date: DTCOMP

Number of comment lines: TOTCOM
OCOMR001
OCOMR002
OCOMR003
OCOMR004
OCOMR005
OCOMR006
OCOMR007
OCOMR008
OCOMR009
OCOMR010
OCOMR011
OCOMR012
OCOMR013
OCOMR014
OCOMR015
OCOMR016
OCOMR017
OCOMR018
OCOMR019
OCOMR020
OCOMR021
OCOMR022
OCOMR023
OCOMR024
OCOMR025
OCOMR026
OCOMR027
OCOMR028
OCOMR029