

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

**Version:**

**Conducted For:**

	V = Valid
	I = Invalid

Elastomer Type	Bath Number	Elastomer Batch	Oil Code	TESTKEY CMIR	SOT Date	SOT Time	EOT Date	EOT Time
Nitrile (HNBR1)								
Polyacrylate (ACM1)								
Fluoroelastomer (FKM1)								
Silicone (VMQ1)								
Ethylene Acrylate (AEM1)								
Polyacrylate-2 (ACM2)								
Ethylene Acrylate-2 (AEM2)								
Fluoroelastomer-3 (FKM3)								
Ethylene Acrylate-3 (AEM3)								

Alternative Codes:			
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In my opinion this test _____ been conducted in accordance with Test Method ASTM D 7216, Annex A2, and the appropriate amendments through the Information Letter System. The remarks on Form 10 describe any anomalies associated with this test.
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Submitted by: \_\_\_\_\_ Testing Laboratory

\_\_\_\_\_ Signature

\_\_\_\_\_ Typed Name

\_\_\_\_\_ Title

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

**Form 2 – Candidate Data**

<b>Sample Code:</b>	<b>Test Method Version:</b>	<b>Lab:</b>	<b>EOT Date:</b>	<b>Test Length:</b>

<b>Elastomer Identification</b>	<b>TMC Identification</b>	<b>Parameter</b>	<b>Reference Result</b>	<b>Candidate Result</b>
Type:	Industry Oil:	VOLUME CHANGE		
NITRILE (HNBR1)		HARDNESS		
Batch:	CMIR (TESTKEY):	TENSILE STRENGTH		

<b>Elastomer Identification</b>	<b>TMC Identification</b>	<b>Parameter</b>	<b>Reference Result</b>	<b>Candidate Result</b>
Type:	Industry Oil:	VOLUME CHANGE		
POLYACRYLATE (ACM1)		HARDNESS		
Batch:	CMIR (TESTKEY):	TENSILE STRENGTH		

<b>Elastomer Identification</b>	<b>TMC Identification</b>	<b>Parameter</b>	<b>Reference Result</b>	<b>Candidate Result</b>
Type:	Industry Oil:	VOLUME CHANGE		
FLUOROELASTOMER (FKM1)		HARDNESS		
Batch:	CMIR (TESTKEY):	TENSILE STRENGTH		

<b>Elastomer Identification</b>	<b>TMC Identification</b>	<b>Parameter</b>	<b>Reference Result</b>	<b>Candidate Result</b>
Type:	Industry Oil:	VOLUME CHANGE		
SILICONE (VQM1)		HARDNESS		
Batch:	CMIR (TESTKEY):	TENSILE STRENGTH		

<b>Elastomer Identification</b>	<b>TMC Identification</b>	<b>Parameter</b>	<b>Reference Result</b>	<b>Candidate Result</b>
Type:	Industry Oil:	VOLUME CHANGE		
ETHYLENE ACRYLATE (AEM1)		HARDNESS		
Batch:	CMIR (TESTKEY):	TENSILE STRENGTH		

**D 7216 – Engine Oil Elastomer Compatibility (Annex A2 – Light-Duty Elastomers)**  
**Form 3 – Candidate Data (continued)**

<b>Sample Code:</b>	<b>Test Method Version:</b>	<b>Lab:</b>	<b>EOT Date:</b>	<b>Test Length:</b>

<b>Elastomer Identification</b>	<b>TMC Identification</b>	<b>Parameter</b>	<b>Reference Result</b>	<b>Candidate Result</b>
Type:	Industry Oil:	VOLUME CHANGE		
POLYACRYLATE-2 (ACM2)		HARDNESS		
Batch:	CMIR (TESTKEY):	TENSILE STRENGTH		

<b>Elastomer Identification</b>	<b>TMC Identification</b>	<b>Parameter</b>	<b>Reference Result</b>	<b>Candidate Result</b>
Type:	Industry Oil:	VOLUME CHANGE		
ETHYLENE ACRYLATE-2 (AEM2)		HARDNESS		
Batch:	CMIR (TESTKEY):	TENSILE STRENGTH		

<b>Elastomer Identification</b>	<b>TMC Identification</b>	<b>Parameter</b>	<b>Reference Result</b>	<b>Candidate Result</b>
Type:	Industry Oil:	VOLUME CHANGE		
FLUOROELASTOMER-3 (FKM3)		HARDNESS		
Batch:	CMIR (TESTKEY):	TENSILE STRENGTH		

<b>Elastomer Identification</b>	<b>TMC Identification</b>	<b>Parameter</b>	<b>Reference Result</b>	<b>Candidate Result</b>
Type:	Industry Oil:	VOLUME CHANGE		
ETHYLENE ACRYLATE-3 (AEM3)		HARDNESS		
Batch:	CMIR (TESTKEY):	TENSILE STRENGTH		

**D 7216 – Engine Oil Elastomer Compatibility (Annex A2 – Light-Duty Elastomers)  
Form 4 – Results Summary – Candidate (Non-Reference Oil)**

<b>Sample Code:</b>	<b>Lab Oil Code:</b>	<b>Lab:</b>

Elastomer Type:		Elastomer Batch Code:			
		Bath Number:			
Test Temperature, °C	Test Duration, Hours	Volume Change, %	Hardness Change, Points	Tensile Strength Change, %	
Start of Test, Date / Time	End of Test, Date / Time				
VOL, HARD, TENSTR Change					
Average					
Correction Factor					
Corrected Average					
Standard Deviation					

Elastomer Type:		Elastomer Batch Code:			
		Bath Number:			
Test Temperature, °C	Test Duration, Hours	Volume Change, %	Hardness Change, Points	Tensile Strength Change, %	
Start of Test, Date / Time	End of Test, Date / Time				
VOL, HARD, TENSTR Change					
Average					
Correction Factor					
Corrected Average					
Standard Deviation					

Elastomer Type:		Elastomer Batch Code:			
		Bath Number:			
Test Temperature, °C	Test Duration, Hours	Volume Change, %	Hardness Change, Points	Tensile Strength Change, %	
Start of Test, Date / Time	End of Test, Date / Time				
VOL, HARD, TENSTR Change					
Average					
Correction Factor					
Corrected Average					
Standard Deviation					

**D 7216 – Engine Oil Elastomer Compatibility (Annex A2 – Light-Duty Elastomers)  
Form 5 – Results Summary – Candidate (Non-Reference Oil)**

<b>Sample Code:</b>	<b>Lab Oil Code:</b>	<b>Lab:</b>

Elastomer Type:		Elastomer Batch Code:			
		Bath Number:			
Test Temperature, °C	Test Duration, Hours	Volume Change, %	Hardness Change, Points	Tensile Strength Change, %	
Start of Test, Date / Time	End of Test, Date / Time				
VOL, HARD, TENSTR Change					
Average					
Correction Factor					
Corrected Average					
Standard Deviation					

Elastomer Type:		Elastomer Batch Code:			
		Bath Number:			
Test Temperature, °C	Test Duration, Hours	Volume Change, %	Hardness Change, Points	Tensile Strength Change, %	
Start of Test, Date / Time	End of Test, Date / Time				
VOL, HARD, TENSTR Change					
Average					
Correction Factor					
Corrected Average					
Standard Deviation					

Elastomer Type:		Elastomer Batch Code:			
		Bath Number:			
Test Temperature, °C	Test Duration, Hours	Volume Change, %	Hardness Change, Points	Tensile Strength Change, %	
Start of Test, Date / Time	End of Test, Date / Time				
VOL, HARD, TENSTR Change					
Average					
Correction Factor					
Corrected Average					
Standard Deviation					

**D 7216 – Engine Oil Elastomer Compatibility (Annex A2 – Light-Duty Elastomers)  
Form 6 – Results Summary – Candidate (Non-Reference Oil)**

<b>Sample Code:</b>	<b>Lab Oil Code:</b>	<b>Lab:</b>

Elastomer Type:		Elastomer Batch Code:			
		Bath Number:			
Test Temperature, °C	Test Duration, Hours	Volume Change, %	Hardness Change, Points	Tensile Strength Change, %	
Start of Test, Date / Time	End of Test, Date / Time				
VOL, HARD, TENSTR Change					
Average					
Correction Factor					
Corrected Average					
Standard Deviation					

Elastomer Type:		Elastomer Batch Code:			
		Bath Number:			
Test Temperature, °C	Test Duration, Hours	Volume Change, %	Hardness Change, Points	Tensile Strength Change, %	
Start of Test, Date / Time	End of Test, Date / Time				
VOL, HARD, TENSTR Change					
Average					
Correction Factor					
Corrected Average					
Standard Deviation					

Elastomer Type:		Elastomer Batch Code:			
		Bath Number:			
Test Temperature, °C	Test Duration, Hours	Volume Change, %	Hardness Change, Points	Tensile Strength Change, %	
Start of Test, Date / Time	End of Test, Date / Time				
VOL, HARD, TENSTR Change					
Average					
Correction Factor					
Corrected Average					
Standard Deviation					

**D 7216 – Engine Oil Elastomer Compatibility (Annex A2 – Light-Duty Elastomers)  
Form 7 – Results Summary – Reference Oil**

<b>Lab Oil Code:</b>	<b>Lab:</b>

Elastomer Type: CMIR (TESTKEY): Bath Number:			TMC Industry Oil Code: Batch Code: Bath Type:		
Test Temperature, °C	Test Duration, Hours	Volume Change, %	Hardness Change, Points	Tensile Strength Change, %	
Start of Test, Date / Time	End of Test, Date / Time				
VOL, HARD, TENSTR Change					
Average					
Correction Factor					
Corrected Average					
Standard Deviation					

Elastomer Type: CMIR (TESTKEY): Bath Number:			TMC Industry Oil Code: Batch Code: Bath Type:		
Test Temperature, °C	Test Duration, Hours	Volume Change, %	Hardness Change, Points	Tensile Strength Change, %	
Start of Test, Date / Time	End of Test, Date / Time				
VOL, HARD, TENSTR Change					
Average					
Correction Factor					
Corrected Average					
Standard Deviation					

Elastomer Type: CMIR (TESTKEY): Bath Number:			TMC Industry Oil Code: Batch Code: Bath Type:		
Test Temperature, °C	Test Duration, Hours	Volume Change, %	Hardness Change, Points	Tensile Strength Change, %	
Start of Test, Date / Time	End of Test, Date / Time				
VOL, HARD, TENSTR Change					
Average					
Correction Factor					
Corrected Average					
Standard Deviation					

**D 7216 – Engine Oil Elastomer Compatibility (Annex A2 – Light-Duty Elastomers)  
Form 8 – Results Summary – Reference Oil**

<b>Lab Oil Code:</b>	<b>Lab:</b>

Elastomer Type: CMIR (TESTKEY): Bath Number:			TMC Industry Oil Code: Batch Code: Bath Type:		
Test Temperature, °C	Test Duration, Hours	Volume Change, %	Hardness Change, Points	Tensile Strength Change, %	
Start of Test, Date / Time	End of Test, Date / Time				
VOL, HARD, TENSTR Change					
Average					
Correction Factor					
Corrected Average					
Standard Deviation					

Elastomer Type: CMIR (TESTKEY): Bath Number:			TMC Industry Oil Code: Batch Code: Bath Type:		
Test Temperature, °C	Test Duration, Hours	Volume Change, %	Hardness Change, Points	Tensile Strength Change, %	
Start of Test, Date / Time	End of Test, Date / Time				
VOL, HARD, TENSTR Change					
Average					
Correction Factor					
Corrected Average					
Standard Deviation					

Elastomer Type: CMIR (TESTKEY): Bath Number:			TMC Industry Oil Code: Batch Code: Bath Type:		
Test Temperature, °C	Test Duration, Hours	Volume Change, %	Hardness Change, Points	Tensile Strength Change, %	
Start of Test, Date / Time	End of Test, Date / Time				
VOL, HARD, TENSTR Change					
Average					
Correction Factor					
Corrected Average					
Standard Deviation					

**D 7216 – Engine Oil Elastomer Compatibility (Annex A2 – Light-Duty Elastomers)  
Form 9 – Results Summary – Reference Oil**

<b>Lab Oil Code:</b>	<b>Lab:</b>

Elastomer Type: CMIR (TESTKEY): Bath Number:			TMC Industry Oil Code: Batch Code: Bath Type:		
Test Temperature, °C	Test Duration, Hours	Volume Change, %	Hardness Change, Points	Tensile Strength Change, %	
Start of Test, Date / Time	End of Test, Date / Time				
VOL, HARD, TENSTR Change					
Average					
Correction Factor					
Corrected Average					
Standard Deviation					

Elastomer Type: CMIR (TESTKEY): Bath Number:			TMC Industry Oil Code: Batch Code: Bath Type:		
Test Temperature, °C	Test Duration, Hours	Volume Change, %	Hardness Change, Points	Tensile Strength Change, %	
Start of Test, Date / Time	End of Test, Date / Time				
VOL, HARD, TENSTR Change					
Average					
Correction Factor					
Corrected Average					
Standard Deviation					

Elastomer Type: CMIR (TESTKEY): Bath Number:			TMC Industry Oil Code: Batch Code: Bath Type:		
Test Temperature, °C	Test Duration, Hours	Volume Change, %	Hardness Change, Points	Tensile Strength Change, %	
Start of Test, Date / Time	End of Test, Date / Time				
VOL, HARD, TENSTR Change					
Average					
Correction Factor					
Corrected Average					
Standard Deviation					

