

## D 7216 – Engine Oil Elastomer Compatibility Form 1 – Validity Declaration

Version:  
Conducted for:

	V = Valid
	I = Invalid

Elastomer Type	Bath Number	Elastomer Batch	Oilcode	CMIR	SOT Date	SOT Time	EOT Date	EOT Time
Nitrile								
Polyacrylate								
Fluoroelastomer								
Silicone								
Vamac								

Alternate Codes:			
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In my opinion this test _____ been conducted in accordance with Test Method D 7216 and the appropriate amendments through the information letter system. The remarks on Form 7 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  
Form 2 – Candidate Data**

Sample Code:	Lab:	EOT Date:
Test Method Version:		Test Length:

Elastomer Identification	TMC Identification	Parameter	Specification Limit	Acceptance Limits		Reference Result	Candidate Result
				Updated on:			
Type:	Industry Oil:	Volume Change	+5% to -3%		To		
Nitrile		Hardness	+7 pts to -5 pts		To		
Batch:	CMIR:	Tensile Strength	+10% to -TMC 1006		To		
		Elongation	+10% to -TMC 1006		To		

Elastomer Identification	TMC Identification	Parameter	Specification Limit	Acceptance Limits		Reference Result	Candidate Result
				Updated on:			
Type:	Industry Oil:	Volume Change	+5% to -3%		to		
Polyacrylate		Hardness	+8 pts to -5 pts		to		
Batch:	CMIR:	Tensile Strength	+18% to -15%		to		
		Elongation	+10% to -35%		to		

Elastomer Identification	TMC Identification	Parameter	Specification Limit	Acceptance Limits		Reference Result	Candidate Result
				Updated on:			
Type:	Industry Oil:	Volume Change	+5% to -2%		to		
Fluoroelastomer		Hardness	+7 pts to -5 pts		to		
Batch:	CMIR:	Tensile Strength	+10% to -TMC 1006		to		
		Elongation	+10% to -TMC 1006		to		

Elastomer Identification	TMC Identification	Parameter	Specification Limit	Acceptance Limits		Reference Result	Candidate Result
				Updated on:			
Type:	Industry Oil:	Volume Change	+TMC 1006 to -3%		to		
Silicone		Hardness	+5 pts to -TMC 1006		to		
Batch:	CMIR:	Tensile Strength	+10% to -45%		to		
		Elongation	+20% to -30%		to		

Elastomer Identification	TMC Identification	Parameter	Specification Limit	Acceptance Limits		Reference Result	Candidate Result
				Updated on:			
Type:	Industry Oil:	Volume Change	+TMC1006 to -3		to		
Vamac		Hardness	+5 to -TMC1006		to		
Batch:	CMIR:	Tensile Strength	+10 to -TMC1006		to		
		Elongation	+10 to -TMC1006		to		

**D 7216 – Engine Oil Elastomer Compatibility  
Form 3 – Results Summary – Non-Reference Oil**

Sample Code:	Lab:
Lab Oil Code:	

Elastomer Type:		Elastomer Batch Code:			
SOT Time:		EOT Time:		Bath Number:	
SOT Date:		EOT Date:			
Test Temperature, °C	Test Duration, Hours	Volume Change, %	Hardness Change, Points	Tensile Strength Change, %	Elongation Change, %
Average					
Correction Factor					
Corrected Average					
Standard Deviation					

Elastomer Type:		Elastomer Batch Code:			
SOT Time:		EOT Time:		Bath Number:	
SOT Date:		EOT Date:			
Test Temperature, °C	Test Duration, Hours	Volume Change, %	Hardness Change, Points	Tensile Strength Change, %	Elongation Change, %
Average					
Correction Factor					
Corrected Average					
Standard Deviation					

Elastomer Type:		Elastomer Batch Code:			
SOT Time:		EOT Time:		Bath Number:	
SOT Date:		EOT Date:			
Test Temperature, °C	Test Duration, Hours	Volume Change, %	Hardness Change, Points	Tensile Strength Change, %	Elongation Change, %
Average					
Correction Factor					
Corrected Average					
Standard Deviation					

**D 7216 – Engine Oil Elastomer Compatibility  
Form 4 – Results Summary – Non-Reference Oil**

Sample Code:	Lab:
Lab Oil Code:	

Elastomer Type:		Elastomer Batch Code:			
SOT Time:		EOT Time:		Bath Number:	
SOT Date:		EOT Date:			
Test Temperature, °C	Test Duration, Hours	Volume Change, %	Hardness Change, Points	Tensile Strength Change, %	Elongation Change, %
Average					
Correction Factor					
Corrected Average					
Standard Deviation					

Elastomer Type:		Elastomer Batch Code:			
SOT Time:		EOT Time:		Bath Number:	
SOT Date:		EOT Date:			
Test Temperature, °C	Test Duration, Hours	Volume Change, %	Hardness Change, Points	Tensile Strength Change, %	Elongation Change, %
Average					
Correction Factor					
Corrected Average					
Standard Deviation					

**D 7216 – Engine Oil Elastomer Compatibility  
Form 5 – Results Summary – Reference Oil**

Lab Oil Code:			Lab:		
CMIR: Elastomer Type: SOT Time: SOT Date:			TMC Industry Oil Code: Elastomer Batch Code: EOT Time: EOT Date:		
			Bath Number:		
Test Temperature, °C	Test Duration, Hours	Volume Change, %	Hardness Change, Points	Tensile Strength Change, %	Elongation Change, %
Average					
Correction Factor					
Corrected Average					
Standard Deviation					

CMIR: Elastomer Type: SOT Time: SOT Date:			TMC Industry Oil Code: Elastomer Batch Code: EOT Time: EOT Date:		
			Bath Number:		
Test Temperature, °C	Test Duration, Hours	Volume Change, %	Hardness Change, Points	Tensile Strength Change, %	Elongation Change, %
Average					
Correction Factor					
Corrected Average					
Standard Deviation					

CMIR: Elastomer Type: SOT Time: SOT Date:			TMC Industry Oil Code: Elastomer Batch Code: EOT Time: EOT Date:		
			Bath Number:		
Test Temperature, °C	Test Duration, Hours	Volume Change, %	Hardness Change, Points	Tensile Strength Change, %	Elongation Change, %
Average					
Correction Factor					
Corrected Average					
Standard Deviation					

**D 7216 – Engine Oil Elastomer Compatibility  
Form 6 – Results Summary – Reference Oil**

Lab Oil Code:	Lab:
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CMIR:		TMC Industry Oil Code:			
Elastomer Type:		Elastomer Batch Code:			
SOT Time:		EOT Time:		Bath Number:	
SOT Date:		EOT Date:			
Test Temperature, °C	Test Duration, Hours	Volume Change, %	Hardness Change, Points	Tensile Strength Change, %	Elongation Change, %
Average					
Correction Factor					
Corrected Average					
Standard Deviation					

CMIR:		TMC Industry Oil Code:			
Elastomer Type:		Elastomer Batch Code:			
SOT Time:		EOT Time:		Bath Number:	
SOT Date:		EOT Date:			
Test Temperature, °C	Test Duration, Hours	Volume Change, %	Hardness Change, Points	Tensile Strength Change, %	Elongation Change, %
Average					
Correction Factor					
Corrected Average					
Standard Deviation					

