

GF-5 / ELASTOMER COMPATIBILITY / SAE J2643

Elastomer Compatibility

SPECIFICATIONS

SAE J2643 is an SAE procedure proposed for GF-5 Performance Category.

OBJECTIVE

SAE J2643:
This standard specifies requirements for vulcanized rubbers in sheet form for use as standards in characterizing the effect of test liquids and service fluids.

FIELD SERVICE SIMULATED

PROCEDURE FIXTURE

PROCEDURE PARAMETERS

CRITICAL PARTS EVALUATED

USED OIL ANALYSIS

PASS / FAIL CRITERIA

Polyacrylate rubber (ACM-1)	
ASTM D471, Volume, %Δ	-5, 9
ASTM D2240, Hardness, pts.	-10, 10
ASTM D412, Tensile strength, %Δ	-40, 40
Hydrogenated nitrile rubber	
ASTM D471, Volume, %Δ	-5, 10
ASTM D2240, Hardness, pts.	-10, 5
ASTM D412, Tensile Strength, %Δ	-20, 15
Silicone rubber (VMQ-1)	
ASTM D471, Volume, %Δ	-5, 40
ASTM D2240, Hardness, pts.	-30, 10
ASTM D412, Tensile Strength, %Δ	-50, 5
Fluorocarbon Rubber (FKM-1)	
ASTM D471, Volume, %Δ	-2, 3
ASTM D2240, Hardness, pts.	-6, 6
ASTM D412, Tensile Strength, %Δ	-65, 10
ASTM D412, Elongation at Break, %Δ	-65, 10
Ethylene Acrylic Rubber (AEM-1)	
ASTM D471, Volume, %Δ	-5, 30
ASTM D2240, Hardness, pts.	-20, 10
ASTM D412, Tensile Strength, %Δ	-30, 30



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