CDI PRODUCTS®
A Michelin Group Company

Material Data Sheet

Arylast® 4472

COMPOUND: 4472

POLYMER: Nitrile Rubber (NBR)

DESCRIPTION: 73a Black – Aerospace Grade per MIL-PRF-25732E, QPL listed

Property		ASTM Method	Specification Limits	Tested Values	Units
Original Physical Properties (AS28775-214 O-Rings)	Hardness	D1414 / D2240	68 – 78	70	Shore A
	Specific Gravity	D1414 / D297	--	1.21	--
	Tensile	D1414	1350 (9.3) min.	2705 (18.7)	psi (MPa)
	Elongation	D1414	160 min.	305	%
	M100	D1414	500 (3.4) min.	558 (3.8)	psi (MPa)
	TR-10 (50% Initial Elongation)	D1414 / D1329	-49 (-45) max.	-51.9 (-46.6)	°F (°C)
	Glass Transition (DSC inflection point)	D7426	-49 (-45) max.	-59.2 (-50.7)	°F (°C)
Fluid Immersion Properties: 70 Hrs @ 250°F (121°C) in MIL-PRF-5606 Fluid (AS28775-214 O-Rings)	Hardness Change	D1414 / D471	+5, -15	-8	Pts. Shore A
	Tensile Change		-50 max.	-30.8	%
	Elongation Change		-35 max.	-30.5	%
	Volume Change		+1 to +20	+17.5	%
	Compression set in fluid	D1414 / D471 / D395-B	55 max	32.6	%
	TR-10 after immersion	D1414 / D471 / D1329	-49 (-45) max.	-52.6 (-47)	°F (°C)
Fluid Immersion Properties: 70 Hrs @ 250°F (121°C) in AMS-3400 Fluid (AS28775-214 O-Rings)	Hardness Change	D1414 / D471	+10, -10	-8	Pts. Shore A
	Tensile Change		-40 max.	-36.6	%
	Elongation Change		-45 max.	-38.7	%
	Volume Change		+1 to +20	+15.7	%
	Compression set in fluid	D1414 / D471 / D395-B	55 max	32.6	%
	TR-10 after immersion	D1414 / D471 / D1329	-47 (-43.8) max.	-63 (-52.8)	°F (°C)

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Property		ASTM Method	Specification Limits	Tested Values	Units
Corrosion and Adhesion: MIL-PRF-6083 type I Fluid, 14 days (AS28775-214 O-Rings)	AMS-QQ-A-250/4 2024 Aluminum Alloy	MIL-PRF-25732E Section 4.6	No Corrosion No Adhesion	No Corrosion No Adhesion	--
	AMS4027 6061 Aluminum Alloy		No Corrosion No Adhesion	No Corrosion No Adhesion	--
	AMS-QQ-A-250/12 7075 Aluminum Alloy		No Corrosion No Adhesion	No Corrosion No Adhesion	--
	AMS-5630 440C Stainless Steel		No Corrosion No Adhesion	No Corrosion No Adhesion	--
	AMS-5513 304 Stainless Steel		No Corrosion No Adhesion	No Corrosion No Adhesion	--
	AMS6345 4130 Steel Aircraft quality		No Corrosion No Adhesion	No Corrosion No Adhesion	--

Rev. None – 2024-10 BF