

Aerospace standard SAE AS1701

Class V:	-54°C/+454°C usage: corrosion resistance steels, heat-corrosion resistant steels MoS2 + inorganic airdrying thermal stability: up to 454°C corrosion resistance: not required
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Molykote candidate: **D 321R**

General technical requirements:

3,1	no silver or its compounds, lead, halogenated solvents		
3.3.1	surface treatment of parts: see table 2		
3,4	coating thickness: 5.1/12.7 µm	Nonferrous material	ASTM D 1400
		Ferrous material	ASTM D 1186
3,5	film adhesion		ASTM D 3359 Method B
3.5.1	fluid resistance	ASTM D 2510 procedure C	
	fluids:	ASTM D 1141 vol.31 (substitute ocean water) (proc. A ?)	
		MIL-A-8243 (anti-icing fluid)	
		VV-D-1078 (damping fluid, silicone based)	
		MIL-PRF-83282 (synthetic hydraulic fluid fire resistant)	
		MIL-PRF-23699 (synthetic turbine oil)	
		MIL-PRF-7808 (synthetic turbine oil)	
		MIL-DTL-5624 (aviation turbine fuel, kerosene JP4/JP5)	
		Methanol (O-M-232) + reagent water (D 1193) 44/56 p/vol (p)	
		no softening, blistering, discoloration, undercutting or loss of adhesion	
3,6	thermal stability	4 hrs. at max. temp. limit + cool to RT + film adhesion (3.5)	
		3 test panels - no flaking, cracking, or peeling	
3,7	vacuum stability	not required	
3,8	shock sensitivity to liquid oxygen	not required	
3,9	film appearance	visual examination with min. 10x magnification lamp (min. power)	
		before and after thermal stability test (3.6) - no cracks, scratches, etc.	
3.10	corrosion resistance	not required	
3.11	coefficient of friction	ASTM D 2714 LFW1 oscillating	
		static coefficient of friction: 0.03/0.13	
3.12	wear requirements	not required	
3.12.1.1	endurance life	ASTM D 2625	
3.12.1.2	load carrying capacity	ASTM D 2625	

Quality assurance:

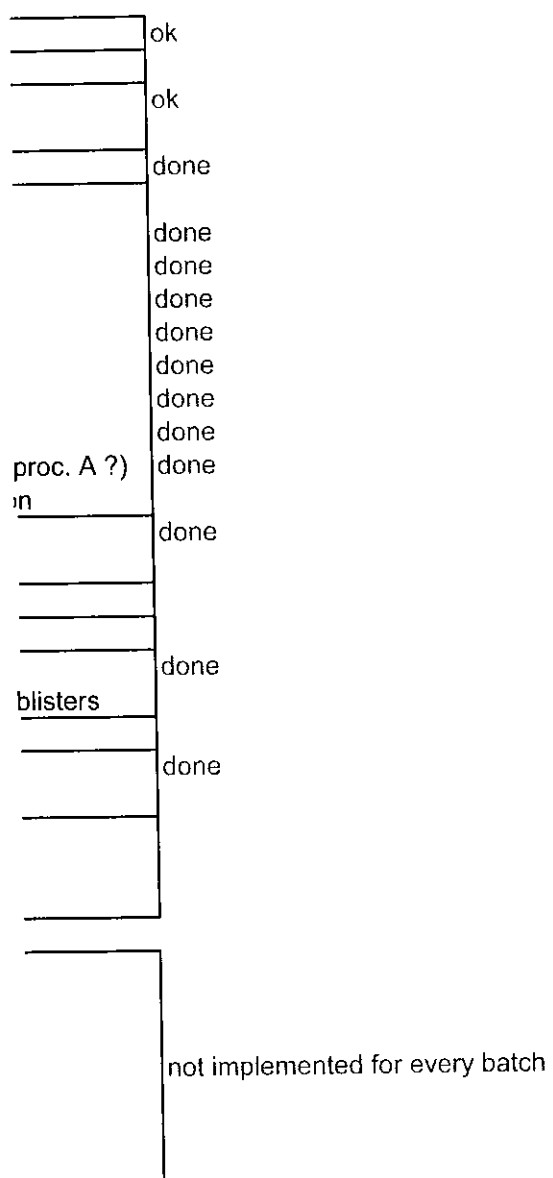
4.1.1	qualification tests:	product manufacturer is responsible for passing all qualification tests
4.1.2	quality conformance tests:	each lot shall pass the tests as applicable to the class:
		1) coating thickness (3.4)
		2) film adhesion (3.5) also (3.5.1) ?
		3) film appearance (3.9)

questions:

preparation of panels (pre-treatment)?

coefficient of friction 3.11 - load?

quality tests: film adhesion, only 3.5 and not 3.5.1?



phosphating with DOD-P-16232 Type M or Z class3 = Hebrobond M 98
apply by spraying
thickness of the AFC between 5.1/12.7 μm
airdrying

questions:

preparation of panels (pre-treatment)?

coefficient of friction 3.11 - load?

quality tests: film adhesion, only 3.5 and not 3.5.1?