

CNG Oil compatibility with AFLAS®



Test method Soaked into the fluid at 175°C for 168h & 720h.
Test fluid CNG Oil (The engine oil for vehicle fueled by Compressed Natural Gas)
Test piece AFLAS® 200P (standard formulation)

Formulation	AFLAS® 200P	100
	MT-Carbon(N990)	25
	TAIC*	5
	Perkadox® 14**	1
	MgO (highly active)	3
	Sodium Stearate	1

(phr)

Cure Conditions Press molded at 170C for 20min
 Post cured at 200C for 4h

Properties (before test)	AFLAS® 200P	FKM (polyol cure)	FKM (peroxide cure)
Tensile strength [MPa]	16	14	19
Tensile Elongation [%]	260	173	290
Hardness [shore-A]	66	86	68

CNG Oil compatibility 175 °C for 168 hours	AFLAS® 200P	FKM (polyol cure)	FKM (peroxide cure)
Change of Tensile Strength [%]	1	-48	-54
Change of Tensile Elongation [%]	-12	-58	-30
Change in Hardness [points]	-3	0	-3
Volume change [%]	3.3	0.6	0.1

CNG Oil compatibility 175 °C for 720 hours	AFLAS® 200P	FKM (polyol cure)	FKM (peroxide cure)
Change of Tensile Strength [%]	-4	-35	-34
Change of Tensile Elongation [%]	-26	-39	-16
Change in Hardness [points]	-1	0	-2
Volume change [%]	4.1	0.9	0.1

* Triallylisocyanurate

** 1,3-bis(t-butylperoxy)-diisopropylbenzene. Perkadox® is a registered trademark of Akzo Nobel Chemicals B.V.