

Engine oil SM class compatibility with AFLAS®



Test method Soaked into the fluid at 175°C for 168h & 720h.
Test fluid Engine oil SM class
Test piece AFLAS® 150P (standard formulation)

Formulation	AFLAS® 150P	100
	MT-Carbon(N990)	30
	TAIC*	5
	Perkadox® 14**	1
	Sodium Stearate	1

(phr)

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

Properties (before test)	AFLAS® 150P	FKM (polyol cure)	FKM (peroxide cure)
Tensile strength [MPa]	16	14	19
Tensile Elongation [%]	306	173	290
Hardness [shore-A]	72	86	68

Engine oil SM class compatibility 175 °C for 168 hours	AFLAS® 150P	FKM (polyol cure)	FKM (peroxide cure)
Change of Tensile Strength [%]	-10	-12	-2
Change of Tensile Elongation [%]	-42	-9	6
Change in Hardness [points]	-7	0	-3
Volume change [%]	6.9	0.7	0.7

Engine oil SM class compatibility 175 °C for 720 hours	AFLAS® 150P	FKM (polyol cure)	FKM (peroxide cure)
Change of Tensile Strength [%]	-9	-27	-4
Change of Tensile Elongation [%]	-8	-35	7
Change in Hardness [points]	-7	2	-2
Volume change [%]	6.8	-0.3	-0.7

* Triallylisocyanurate

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