

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® 100S (standard formulation)

Formulation	AFLAS® 100S	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® 100S	FKM (polyol cure)	FKM (peroxide cure)
Tensile strength [MPa]	22	14	19
Tensile Elongation [%]	222	173	290
Hardness [shore-A]	72	86	68

Engine oil SM class compatibility 175 °C for 168 hours	AFLAS® 100S	FKM (polyol cure)	FKM (peroxide cure)
Change of Tensile Strength [%]	-13	-12	-2
Change of Tensile Elongation [%]	-2	-9	6
Change in Hardness [points]	-8	0	-3
Volume change [%]	6.1	0.7	0.7

Engine oil SM class compatibility 175 °C for 720 hours	AFLAS® 100S	FKM (polyol cure)	FKM (peroxide cure)
Change of Tensile Strength [%]	-12	-27	-4
Change of Tensile Elongation [%]	2	-35	7
Change in Hardness [points]	-6	2	-2
Volume change [%]	5.8	-0.3	-0.7

* Triallylisocyanurate

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