

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® 100H (standard formulation)

Formulation	AFLAS® 100H	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® 100H	FKM (polyol cure)	FKM (peroxide cure)
Tensile strength [MPa]	21.4	14.0	19.1
Tensile Elongation [%]	6.3	8.5	3.1
Hardness [shore-A]	72	86	68

Engine oil SM class compatibility 175 °C for 168 hours	AFLAS® 100H	FKM (polyol cure)	FKM (peroxide cure)
Change of Tensile Strength [%]	-14	-12	-2
Change of Tensile Elongation [%]	4	-9	6
Change in Hardness [points]	-8	0	-3
Volume change [%]	5.9	0.7	0.7

Engine oil SM class compatibility 175 °C for 720 hours	AFLAS® 100H	FKM (polyol cure)	FKM (peroxide cure)
Change of Tensile Strength [%]	-15	-27	-4
Change of Tensile Elongation [%]	5	-35	7
Change in Hardness [points]	-8	2	-2
Volume change [%]	4.6	-0.3	-0.7

* Triallylisocyanurate

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