

ATF (Automatic Transmission Fluid) compatibility with AFLAS®



Test method Soaked into the fluid at 175°C for 200h, 500h & 1000h.
Test fluid ATF (Automatic Transmission Fluid)
Test piece AFLAS® 150P (standard formulation)

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

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]	21	13	24
Tensile Elongation [%]	257	197	354
Hardness [shore-A]	70	79	67

ATF compatibility 175 °C for 200 hours	AFLAS® 150P	FKM (polyol cure)	FKM (peroxide cure)
Change of Tensile Strength [%]	-17.7	-38.7	-43.4
Change of Tensile Elongation [%]	-3.9	-45.7	-28.8
Change in Hardness [points]	-4	1	1
Volume change [%]	9.3	1.3	0.9

ATF compatibility 175 °C for 500 hours	AFLAS® 150P	FKM (polyol cure)	FKM (peroxide cure)
Change of Tensile Strength [%]	-12.9	-38	-46.7
Change of Tensile Elongation [%]	-7	-52.3	-31.1
Change in Hardness [points]	-5	-1	-1
Volume change [%]	8.8	9.3	1

ATF compatibility 175 °C for 1000 hours	AFLAS® 150P	FKM (polyol cure)	FKM (peroxide cure)
Change of Tensile Strength [%]	-12	-48.2	-43
Change of Tensile Elongation [%]	-3.5	-59.4	-24.3
Change in Hardness [points]	0	-1	-2
Volume change [%]	9.8	2.5	2.2

* Triallylisocyanurate

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