

# 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® 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]	23	13	24
Tensile Elongation [%]	236	197	354
Hardness [shore-A]	72	79	67

ATF compatibility 175 °C for 200 hours	AFLAS® 100S	FKM (polyol cure)	FKM (peroxide cure)
Change of Tensile Strength [%]	-13.9	-38.7	-43.4
Change of Tensile Elongation [%]	-13.6	-45.7	-28.8
Change in Hardness [points]	-3	1	1
Volume change [%]	13.5	1.3	0.9

ATF compatibility 175 °C for 500 hours	AFLAS® 100S	FKM (polyol cure)	FKM (peroxide cure)
Change of Tensile Strength [%]	-15.6	-38	-46.7
Change of Tensile Elongation [%]	-18.6	-52.3	-31.1
Change in Hardness [points]	-6	-1	-1
Volume change [%]	8.2	9.3	1

ATF compatibility 175 °C for 1000 hours	AFLAS® 100S	FKM (polyol cure)	FKM (peroxide cure)
Change of Tensile Strength [%]	-14.4	-48.2	-43
Change of Tensile Elongation [%]	-18.2	-59.4	-24.3
Change in Hardness [points]	-8	-1	-2
Volume change [%]	10.4	2.5	2.2

\* Triallylisocyanurate

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