

# Hot water compatibility with AFLAS®



**Test method** Soaked into the fluid at 180°C for 168h & 720h.  
**Test fluid** Hot water  
**Test piece** AFLAS® 100S (standard formulation)

Formulation	AFLAS® 100S	100
	MT-Carbon(N990)	30
	TAIC*	5
	Parkadox® 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
Tensile strength [MPa]	22.2	14.0
Tensile Elongation [%]	222	173
Hardness [shore-A]	72	86

Hot water compatibility 180 °C for 168 hours	AFLAS® 100S	FKM
Change of Tensile Strength [%]	-12	-47
Change of Tensile Elongation [%]	4	24
Change in Hardness [points]	-4	-16
Volume change [%]	13.8	23.8

Hot water compatibility 180 °C for 720 hours	AFLAS® 100S	FKM
Change of Tensile Strength [%]	-15	-83
Change of Tensile Elongation [%]	0	-42
Change in Hardness [points]	-5	-28
Volume change [%]	16.1	103.1

\* Triallylisocyanurate

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