

10% Hydrogen Peroxide compatibility with AFLAS®



Test method Soaked into the fluid at 80°C for 72h, 168h, 504h and 1008h.
Test fluid 10% Hydrogen Peroxide (H₂O₂) diluted by water
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	ref. 2-FKM(polyol)
Tensile strength [MPa]	20	14
Tensile Elongation [%]	239	212
Hardness [shore-A]	69	78

10% Hydrogen Peroxide compatibility 80 °C for 72 hours	AFLAS® 100S	ref. 2-FKM(polyol)
Change of Tensile Strength [%]	-34	-34
Change of Tensile Elongation [%]	-17	-6
Change in Hardness [points]	-4	-9
Volume change [%]	4.6	4

10% Hydrogen Peroxide compatibility 80 °C for 168 hours	AFLAS® 100S	ref. 2-FKM(polyol)
Change of Tensile Strength [%]	-28	-30
Change of Tensile Elongation [%]	-10	-3
Change in Hardness [points]	-4	-8
Volume change [%]	5.9	5

10% Hydrogen Peroxide compatibility 80 °C for 504 hours	AFLAS® 100S	ref. 2-FKM(polyol)
Change of Tensile Strength [%]	-31	-34
Change of Tensile Elongation [%]	-17	-13
Change in Hardness [points]	-5	-7
Volume change [%]	8	6

10% Hydrogen Peroxide compatibility 80 °C for 1008 hours	AFLAS® 100S	ref. 2-FKM(polyol)
Change of Tensile Strength [%]	-31	-36
Change of Tensile Elongation [%]	-10	-6
Change in Hardness [points]	-6	-6
Volume change [%]	10.9	9

* Triallylisocyanurate

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