

10% Acetic Hydroperoxide compatibility with AFLAS®



Test method Soaked into the fluid at 80°C for 72h, 168h, 504h and 1008h.
Test fluid 10% Acetic Hydroperoxide 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% Acetic Hydroperoxide compatibility 80 °C for 72 hours	AFLAS® 100S	ref. 2-FKM(polyol)
Change of Tensile Strength [%]	-5	-25
Change of Tensile Elongation [%]	21	-9
Change in Hardness [points]	-7	-40
Volume change [%]	9	127

10% Acetic Hydroperoxide compatibility 80 °C for 168 hours	AFLAS® 100S	ref. 2-FKM(polyol)
Change of Tensile Strength [%]	-4	-29
Change of Tensile Elongation [%]	14	-20
Change in Hardness [points]	-3	-36
Volume change [%]	10	188

10% Acetic Hydroperoxide compatibility 80 °C for 504 hours	AFLAS® 100S	ref. 2-FKM(polyol)
Change of Tensile Strength [%]	-6	-50
Change of Tensile Elongation [%]	6	-54
Change in Hardness [points]	-7	-33
Volume change [%]	14	366

10% Acetic Hydroperoxide compatibility 80 °C for 1008 hours	AFLAS® 100S	ref. 2-FKM(polyol)
Change of Tensile Strength [%]	-13	-62
Change of Tensile Elongation [%]	3	-65
Change in Hardness [points]	-8	-41
Volume change [%]	18	472

* Triallylisocyanurate

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

Acetic Hydroperoxide : CH₃COOOH