

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® 150P (standard formulation)

Formulation

AFLAS® 150P	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® 150P	ref. 2-FKM(polyol)
Tensile strength [MPa]	17	14
Tensile Elongation [%]	263	212
Hardness [shore-A]	67	78

10% Acetic Hydroperoxide compatibility 80 °C for 72 hours	AFLAS® 150P	ref. 2-FKM(polyol)
Change of Tensile Strength [%]	-4	-25
Change of Tensile Elongation [%]	16	-9
Change in Hardness [points]	-4	-40
Volume change [%]	10	127

10% Acetic Hydroperoxide compatibility 80 °C for 168 hours	AFLAS® 150P	ref. 2-FKM(polyol)
Change of Tensile Strength [%]	-4	-29
Change of Tensile Elongation [%]	21	-20
Change in Hardness [points]	-4	-36
Volume change [%]	9	188

10% Acetic Hydroperoxide compatibility 80 °C for 504 hours	AFLAS® 150P	ref. 2-FKM(polyol)
Change of Tensile Strength [%]	-4	-50
Change of Tensile Elongation [%]	15	-54
Change in Hardness [points]	-7	-33
Volume change [%]	13	366

10% Acetic Hydroperoxide compatibility 80 °C for 1008 hours	AFLAS® 150P	ref. 2-FKM(polyol)
Change of Tensile Strength [%]	-8	-62
Change of Tensile Elongation [%]	8	-65
Change in Hardness [points]	-6	-41
Volume change [%]	17	472

* Triallylisocyanurate

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

Acetic Hydroperoxide : CH₃COOOH