

Electrolyte (60C) compatibility with AFLAS®



Test method Soaked into the fluid at 60 degrees C for 144 hours and 336 hours.
Test fluid Ethylcarbonate + Diethylcarbonate = 50 + 50 wt% (Electrolyte)
Test piece AFLAS® 150P (standard formulation)

Formulation	AFLAS® 150P	
	Material	Amount
	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	FKM (polyol cure)	FKM (peroxide cure)
Tensile Strength [MPa]	16.1	15.1	23.2
Tensile Elongation [%]	320	220	318
Hardness [shore-A]	67	69	66

Electrolyte compatibility 60C for 144 hours	AFLAS® 150P	FKM (polyol cure)	FKM (peroxide cure)
Change of Tensile Strength [%]	-39	-77	-64
Change of Tensile Elongation [%]	-7	-69	-37
Change in Hardness [points]	-24	-13	-12
Volume change [%]	23	142	37

Electrolyte compatibility 60C for 336 hours	AFLAS® 150P	FKM (polyol cure)	FKM (peroxide cure)
Change of Tensile Strength [%]	-38	-71	-62
Change of Tensile Elongation [%]	-3	-64	-31
Change in Hardness [points]	-24	-13	-12
Volume change [%]	21	132	35

* Triallylisocyanurate

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