

Nitric acid 20% aq compatibility with AFLAS®



Test method Soaked into the fluid at 70°C for 168h & 720h.
Test fluid Nitric acid 20% aq
Test piece AFLAS® 200P (standard formulation)

Formulation

AFLAS® 200P	100
MT-Carbon(N990)	25
TAIC*	5
Perkadox® 14**	1
MgO (highly active)	3
Sodium Stearate	1

(phr)

Cure Conditions

Press molded at 170C for 20min
 Post cured at 230C for 24h

Properties (before test)	AFLAS® 200P	FKM (polyol cure)
Tensile strength [MPa]	16	14
Tensile Elongation [%]	260	173
Hardness [shore-A]	66	86

Nitric acid 20% aq compatibility 70 °C for 168 hours	AFLAS® 200P	FKM (polyol cure)
Change of Tensile Strength [%]	-4	-14
Change of Tensile Elongation [%]	18	12
Change in Hardness [points]	-3	-7
Volume change [%]	5.1	23.4

Nitric acid 20% aq compatibility 70 °C for 720 hours	AFLAS® 200P	FKM (polyol cure)
Change of Tensile Strength [%]	-39	-57
Change of Tensile Elongation [%]	28	-13
Change in Hardness [points]	-6	-27
Volume change [%]	14.5	103.3

* Triallylisocyanurate

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