

Grease (Shell Drium R) compatibility with AFLAS®



Test method Soaked into the fluid at 175°C for 70h, 168h, 336h & 500h.
Test fluid Grease (Shell Drium R)
Test piece AFLAS® 150P (specific formulation)

Formulation

AFLAS® 150P	100
MT-Carbon(N990)	30
TAIC*	5
Perkadox® 14**	1
Sodium Stearate	1
Carunauba Wax	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	11.9	23.5
Tensile Elongation [%]	306	250	313
Hardness [shore-A]	70	76	73

Grease Shell Drium R compatibility 175 °C for 70 hours	AFLAS® 150P	FKM (polyol cure)	FKM (peroxide cure)
Change of Tensile Strength [%]	-23.9	NA	-83.6
Change of Tensile Elongation [%]	-2.6	NA	-80.8
Change in Hardness [points]	-10	4	15
Volume change [%]	9	23	8

Grease Shell Drium R compatibility 175 °C for 168 hours	AFLAS® 150P	FKM (polyol cure)	FKM (peroxide cure)
Change of Tensile Strength [%]	-7.3	NA	-87
Change of Tensile Elongation [%]	-9.2	NA	-87.2
Change in Hardness [points]	-7	13	7
Volume change [%]	9.2	34	21

Grease Shell Drium R compatibility 175 °C for 336 hours	AFLAS® 150P	FKM (polyol cure)	FKM (peroxide cure)
Change of Tensile Strength [%]	2.5	NA	NA
Change of Tensile Elongation [%]	-6.9	NA	NA
Change in Hardness [points]	-5	9	-1
Volume change [%]	9.5	33	22

Grease Shell Drium R compatibility 175 °C for 504 hours	AFLAS® 150P	FKM (polyol cure)	FKM (peroxide cure)
Change of Tensile Strength [%]	-4.8	NA	NA
Change of Tensile Elongation [%]	-10.1	NA	NA
Change in Hardness [points]	-3	4	7
Volume change [%]	13.6	27	23

* Triallylisocyanurate

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