

Hydrochloric acid 20%aq compatibility with AFLAS®



Test method Soaked into the fluid at 70°C for 168h.
Test fluid Hydrochloric acid 20%aq (20%aq HCl)
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 | FKM (polyol cure) | FKM (peroxide cure) |
|--------------------------|-------------|-------------------|---------------------|
| Tensile strength [MPa] | 22.2 | 14.0 | 19.1 |
| Tensile Elongation [%] | 222 | 173 | 290 |
| Hardness [shore-A] | 72 | 86 | 68 |

| Hydrochloride 20%aq compatibility 70 °C for 168 hours | AFLAS® 100S | FKM (polyol cure) | FKM (peroxide cure) |
|--|-------------|-------------------|---------------------|
| Change of Tensile Strength [%] | -3 | -3 | 7 |
| Change of Tensile Elongation [%] | 2 | 11 | 10 |
| Change in Hardness [points] | 0 | 1 | 0 |
| Volume change [%] | -0.2 | 1.7 | -0.2 |

* Triallylisocyanurate

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