

10% Sulfuric Acid compatibility with AFLAS®



Test method Soaked into the fluid at 100°C for 70 hours
Test fluid 10% sulfuric acid (10% H₂SO₄ aq)
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 | FKM (polyol cure) | 3-FKM (peroxide cure) |
|--------------------------|-------------|----------------------|--------------------------|
| Tensile strength [MPa] | 18 | 17 | 24 |
| Tensile Elongation [%] | 260 | 270 | 370 |
| Hardness [shore-A] | 70 | 73 | 67 |

| 10% Sulfuric Acid compatibility 100°C for 70 hours | AFLAS® 150P | FKM (polyol cure) | 3-FKM (peroxide cure) |
|---|-------------|----------------------|--------------------------|
| Change of Tensile Strength [%] | -6 | -12 | -4 |
| Change of Tensile Elongation [%] | 8 | 2 | -1 |
| Change in Hardness [points] | 4 | -1 | 1 |
| Volume change [%] | 0.8 | 1.3 | 0 |

* Triallylisocyanurate

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