

4. HEAT RESISTANCE OF FLUROELASTOMERS

AFLAS is a strong heat resistant elastomer for continuous use at 230°C.

| | AFLAS SP* | AFLAS MZ201* | AFLAS 150P | AFLAS 100S | FKM* |
|-----------------------------|-----------|--------------|------------|------------|------|
| Polymer | 100 | 100 | 100 | 100 | 100 |
| MgO | 3 | 3 | | | 3 |
| Ca(OH) ₂ | 6 | 3 | | | 6 |
| MTCarbon | 30 | 30 | 30 | 30 | 30 |
| TAIC | 3 | | 5 | 5 | |
| Peroxide** | 1 | | 1 | 1 | |
| Sodium Stearate | | | 1 | 1 | |
| [Initial Properties] | | | | | |
| Tensile (MPa) | 18.2 | 13.7 | 20.9 | 23.7 | 13.7 |
| Elongation (%) | 220 | 210 | 260 | 240 | 200 |
| 100% Modulus (MPa) | 7.9 | 6.1 | 6.2 | 7.2 | 7.6 |
| Hardness (JIS-A) | 76 | 74 | 70 | 72 | 79 |
| Specific Gravity | 1.61 | 1.67 | 1.58 | 1.58 | 1.83 |
| [Heat Resistance] | | | | | |
| 200°Cx200hr | | | | | |
| Tensile (% Retention) | 109 | 109 | 96 | 95 | 101 |
| Elongation (% Retention) | 84 | 78 | 93 | 88 | 81 |
| Hardness (Point, Change) | 1 | 4 | 1 | 1 | 3 |
| 200°Cx500hr | | | | | |
| Tensile (% Retention) | 72 | 121 | 114 | 110 | 107 |
| Elongation (% Retention) | 88 | 86 | 93 | 87 | 80 |
| Hardness (Point, Change) | 7 | 4 | 5 | 5 | 3 |
| 200°Cx1000hr | | | | | |
| Tensile (% Retention) | 116 | 106 | 102 | 101 | 107 |
| Elongation (% Retention) | 77 | 72 | 93 | 91 | 77 |
| Hardness (Point, Change) | 5 | 5 | 2 | 3 | 3 |
| 230°Cx200hr | | | | | |
| Tensile (% Retention) | 102 | 98 | 89 | 88 | 101 |
| Elongation (% Retention) | 91 | 81 | 114 | 107 | 87 |
| Hardness (Point, Change) | 4 | 3 | 0 | -1 | 1 |
| 230°Cx500hr | | | | | |
| Tensile (% Retention) | 79 | 90 | 72 | 74 | 92 |
| Elongation (% Retention) | 82 | 64 | 132 | 122 | 81 |
| Hardness (Point, Change) | 4 | 8 | -3 | -4 | 1 |
| 250°Cx96hr | | | | | |
| Tensile (% Retention) | 90 | 101 | 73 | 78 | 92 |
| Elongation (% Retention) | 80 | 59 | 116 | 106 | 75 |
| Hardness (Point, Change) | 4 | 6 | 0 | 0 | 2 |

* ; Cure promoters are incorporated.

** : 1,3-bis(t-butylperoxy)-diisopropylbenzene.