

Guide formulation - page 1 of 2

AUTOMOTIVE INDUSTRY
Profile, solid, black
Dual hardness extrusion**55/80 Shore A, EPDM, sulfur cure**

| Guide formulations of Exxon | M 645 | M 646 |
|---------------------------------------|------------------------|--------|
| Vistalon 3666 | 175.00 | --- |
| Vistalon 7001 | --- | 100.00 |
| SRF N-774 | 110.00 | 125.00 |
| Grundöl AP/E Core 600 (ex Flexon 876) | 35.00 | 40.00 |
| SILLITIN Z 86 | 100.00 | --- |
| PEG 4000 | 2.00 | 2.00 |
| Zinc oxide | 10.00 | 7.00 |
| Stearic acid | 1.50 | 1.50 |
| Rhenogran CaO-80 | 11.25 | 5.63 |
| Sulfur | 1.00 | 1.00 |
| MBT | 1.50 | 1.50 |
| TMTD | 0.75 | 0.75 |
| ZDMC | 0.75 | 0.75 |
| TDEC | 0.75 | 0.75 |
| DPTT | 0.75 | 0.75 |
| Total phr | 450.25 | 286.63 |
| Density | g/cm ³ 1.26 | 1.18 |
| ODR, ± 5°, 180°C | | |
| ML, minimum | dNm 19.2 | 24.9 |
| MH, maximum | dNm 71.2 | 151.4 |
| ts ₂ | min 0.9 | 0.5 |
| tC ₉₀ | min 2.2 | 2.0 |

Our applications engineering advice and the information contained in this formulation are based on experience and are made to the best of our knowledge and belief, they must be regarded however as non-binding advice without guarantee. Working and employment conditions over which we have no control exclude any damage claim arising from the use of our data and recommendations. Furthermore we cannot assume any responsibility for patent infringements, which might result from the use of our information.

VM-8/0184/01.2011

| | | M 645 | M 646 | |
|-----------------------------------|---------|-------|-------|----|
| Physical properties | | | | |
| Hot air cure 8 min @ 200°C | | | | |
| Hardness | Shore A | 54 | 80 | |
| Modulus 100 % | MPa | 2.0 | 6.9 | |
| Modulus 300 % | MPa | 4.7 | 9.7 | |
| Tensile strength | MPa | 8.5 | 9.9 | |
| Elongation at break | % | 540 | 330 | |
| Compression set | | | | |
| Press cure 3.5 min @ 180°C | | | | |
| 22 h @ 70°C, 25 % deflection | ASTM B | % | 26 | 23 |
| Air aging, 7 d @ 70°C | | | | |
| Δ Hardness | Shore A | +1 | +1 | |
| Tensile strength | MPa | 8.6 | 10.2 | |
| Elongation at break | % | 510 | 300 | |

Our applications engineering advice and the information contained in this formulation are based on experience and are made to the best of our knowledge and belief, they must be regarded however as non-binding advice without guarantee. Working and employment conditions over which we have no control exclude any damage claim arising from the use of our data and recommendations. Furthermore we cannot assume any responsibility for patent infringements, which might result from the use of our information.

VM-8/0184/01.2011