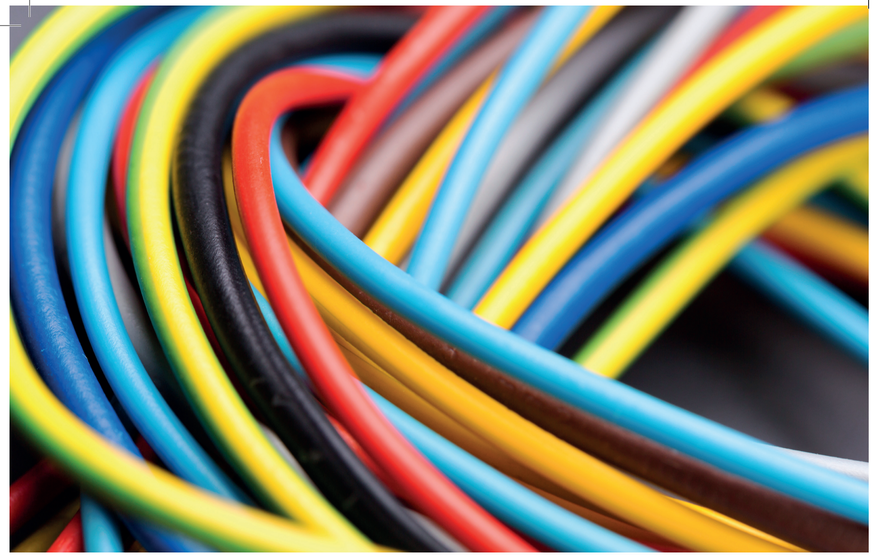

# PRODUCT RANGE

## + SILICONE COMPOUNDS

- STANDARD GRADES FOR LOW AND MEDIUM VOLTAGE INSULATION
- ASH COHESION FOR FIRE RESISTANT CABLES
- LOW SMOKE AND LOW TOXICITY
- AUTOMOTIVE CABLES
- ROLLING STOCK APPLICATION
- **NEW TECHNOLOGY: COLORING IN EXTRUSION**

## + THERMOPLASTIC COMPOUNDS

- HFFR COMPOUND

## + COLOR MASTERBATCHES

- PVC BASED
- SILICONE BASED
- POLYOLEFINE BASED

MESGO compounding solutions
MESGO Iride Colors compounding solutions
MESGO Polska compounding solutions
MESGO Asia compounding solutions

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INDUSTRY

# POWER MANAGEMENT

+ WIRE AND CABLE COMPOUND SOLUTIONS

MESGO
compounding solutions

## SILICONE COMPOUNDS

| WIRE AND CABLE SILICONE COMPOUND SOLUTIONS | | | | | | |
|---|---|---|---|---|---|---|
| TYPE | FEATURES | STANDARDS | UNITS | GENERAL PURPOSE | GENERAL PURPOSE | GENERAL PURPOSE |
| General | Code | | | MV30 | MV80 | MV130 |
| | Appearance | | | off-white[S] | off-white[S] | off-white[S] |
| | Hardness | ASTM D2240 | ShA | 65 | 75 | 75 |
| | Specific gravity | ASTM D1817 | g cm$^{-3}$ | 1,34 | 1,50 | 1.64 |
| Mechanical non-post cured[§] | Tensile strength | DIN 53504 S2 | MPa | 9 | 7,3 | 4.5 |
| | Elongation at break | DIN 53504 S2 | % | 400 | 270 | 240 |
| | Tear strength | ASTM D624B | N mm$^{-1}$ | 16 | 15 | 14 |
| After aging in hot air 10 d @ 200 °C | Hardness increase | ASTM D2240 | ShA | 66 | 76 | 79 |
| | Tensile strength | DIN 53504 S2 | MPa | 5.2 | 4.7 | 5.2 |
| | Elongation at break | DIN 53504 S2 | % | 180 | 100 | 85 |
| Dielectric | Resistivity | ASTM D257 | Ω cm | 2.7 10$^{15}$ | 1.6 10$^{15}$ | 4.8 10$^{14}$ |
| | Permittivity (300kHz) | ASTM 150-81 | | 3,2 | 3,3 | 3.5 |
| | tan δ (300 kHz) | ASTM 150-81 | | 0.0014 | 0.0023 | 0.0037 |
| Fire resistance | UL94 rating | | | HB | HB | HB |
| | LOI | ASTM 2863 | % | 26 | 29 | 35 |

§ Curing conditions: 10 min @ 120 °C with 2,4-dichlorobenzoyl peroxide (DCLBP) as catalyst
S Available in any colour on request

| WIRE AND CABLE SILICONE COMPOUND SOLUTIONS: ASH COHESION AND LOW SMOKE TOXICITY | | | | | | | |
|---|---|---|---|---|---|---|---|
| TYPE | FEATURES | STANDARDS | UNITS | ASH COHESION LOW DENSITY | ASH COHESION HIGH DENSITY | ASH COHESION COST EFFECTIVE | LOW TOXICITY |
| General | Code | | | MG2811NE70 | MG9259NE70 | MG3513NE70 | MG9087NE80 |
| | Appearance | | | off-white[S] | off-white[S] | off-white[S] | off-white[S] |
| | Hardness | ASTM D2240 | ShA | 70 ± 5 | 70 ± 5 | 70 ± 5 | 80 ± 5 |
| | Specific gravity | ASTM D1817 | g cm$^{-3}$ | 1.20 ± 0.03 | 1.37 ± 0.03 | 1.50 ± 0.03 | 1,65 ± 0.03 |
| Mechanical non-post cured[§] | Tensile strength | DIN 53504 S2 | MPa | 6 | 8 | 6 | 5,8 |
| | Elongation at break | DIN 53504 S2 | % | 310 | 350 | 320 | 180 |
| | Tear strength | ASTM D624B | N mm$^{-1}$ | 16 | 20 | 16 | 12 |
| After aging in hot air 10 d @ 200 °C | Hardness increase | ASTM D2240 | ShA | 73 | 77 | 77 | 84 |
| | Tensile strength | DIN 53504 S2 | MPa | 5.2 | 6.3 | 6.6 | 6.9 |
| | Elongation at break | DIN 53504 S2 | % | 140 | 180 | 150 | 124 |
| Dielectric | Resistivity | ASTM D257 | Ω cm | 4.5 10$^{15}$ | 1 10$^{15}$ | 3 10$^{15}$ | 1.5 10$^{14}$ |
| | Permittivity (300kHz) | ASTM 150-81 | | 3.2 | 3.4 | 3.45 | 5.1 |
| | tan δ (300 kHz) | ASTM 150-81 | | 0.006 | 0.0021 | 0.0028 | 0.004 |
| Fire resistance | UL94 rating | | | HB | V1 | V1 | V0 |
| | LOI | ASTM 2863 | % | 28 | 30 | 31 | 42 |
| Features of ashes (3h @ 1000 °C) | Flexural module | Internal[&] | MPa | 20 | 15 | 8 | nd |

§ Curing conditions: 10 min @ 120 °C with 2,4-dichlorobenzoyl peroxide (DCLBP) as catalyst
S Available in any colour on request
& Internal procedure; three-point bending measurement on 10 x 10 x 0.2 cm specimen of ashes

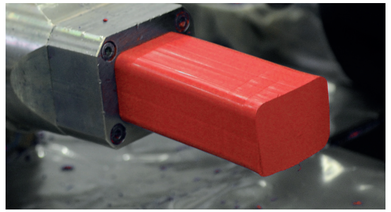
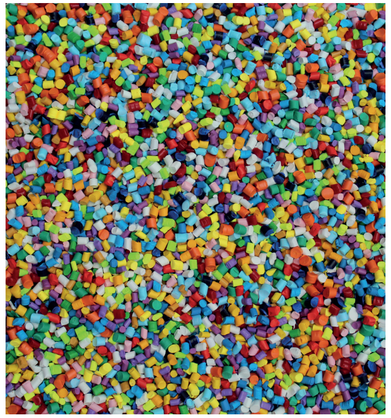
## THERMOPLASTIC COMPOUNDS

A complete range of halogen-free, flame resistant and low-smoke-emission compounds for insulated cables installed in specific environments where low flammability and absence of toxic, black smokes is extremely essential.

| COMMERCIAL NAME | U/M UNIT | ALTAIR F1M12FR00 | ALTAIR F1M12FR01 | ALTAIR F1M12FR02 | ALTAIR F1M12FR03 | ALTAIR F1M12FR04 |
|---|---|---|---|---|---|---|
| FLEXURAL STRENGTH | Mpa | 13 | 12 | 10 | 10 | 10 |
| ELONGATION | % | 190 | 180 | 160 | 180 | 140 |
| LOI | % | 38 | 37 | 45 | 35 | 30 |
| MFI 150°C/21,6KG | gr/10 min | 6 | 10 | 7 | 15 | 8 |
| DENSITY | gr/cm3 | 1,48 | 1,49 | 1,56 | 1,52 | 1,54 |

## COLOR MASTERBATCHES

MESGO's offer for the power management industry includes PVC Color Masterbatches (based on concentrates of pigments, dyes and various types of additives) produced in granules and micro-granules, and compact products (BC) on a silicone base.
Color matching, both on samples and on RAL/PANTONE/NCS imitation, sample testing (0,300 to 1 kg) to color 100 kg of polymer with a masterbatch used at 1%.

| PVC COLOR RANGE | | | |
|---|---|---|---|
| MBPV ARANCIO | W484 | MBPV NERO | N671 |
| MBPV BIANCO | T492 | MBPV ROSSO | M676 |
| MBPV BLU | L756 | MBPV ROSSO | M528 |
| MBPV BLU | L1145 | MBPV VERDE | K549 |
| MBPV GIALLO | H895 | MBPV VERDE | K569 |
| MBPV GRIGIO | Z886 | MBPV VIOLA | B270 |
| MBPV MARRONE | R287 | | |

| SILICONE COLOR RANGE | | | |
|---|---|---|---|
| BC BLU | L1137 | BC VERDE | K68 |
| BC BLU | L1040 | BC GRIGIO | Z395 |
| BC GIALLO | H140 | BC ROSSO | M1507 |
| BC GIALLO | H80 | BC ROSSO | M66 |
| BC ARANCIO | W70 | BC MARRONE | R80 |
| BC BIANCO | T57 | BC VIOLA | B54 |
| BC VERDE | K174 | BC NERO | N522 |