






Halogen-free, radiation cross-linkable, highly flame-retardant insulation and sheathing compound for low voltage cables

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|--|---|--|
| <p>■ Compound class Insulation / Sheathing</p> | <p>■ Compound category RDX</p> | <p>■ Flame retardant MDH</p> |
| <p>■ Standards EN 50363-5 EI 8 EN 50264 EI 105 & EI 110</p> | <p>■ Operating temperature [°C] -40 to 120</p> | <p>■ Oil resistance level ★</p> |
| <p>■ Typical applications <i>Long-term ageing resistance (20.000h/120°C).</i></p> | | |
|  <p>General Installation</p> |  <p>Rolling Stock, Rapid Transit, Railways</p> | |
| <p>■ Features</p> | | |
|  <p>Flame retardant</p> |  <p>Halogen-free</p> |  <p>Low smoke</p> |

PHYSICAL PROPERTIES

| ■ Physical properties | Unit | Typical value | Test method |
|---------------------------------|-------------------|---------------|--------------------|
| Density* | g/cm ³ | 1.37 | DIN EN ISO 1183-1A |
| Hardness* | Shore D | 43 | DIN ISO 7619-1 |
| Melt flow index (150°C; 21,6kg) | g/10min | 4.0 | DIN EN ISO 1133 |

MECHANICAL PROPERTIES **

| ■ Thermoplastic** | Unit | Typical value | Test method |
|--|-------------------|------------------|---------------|
| Tensile strength | N/mm ² | > 10.0 | IEC 60811-501 |
| Elongation at break | % | > 300 | IEC 60811-501 |
| ■ After crosslinking *** | Unit | Typical value | Test method |
| Tensile strength (150 kGy) | % | 11.5 | IEC 60811-501 |
| Elongation at break (150 kGy) | % | 261 | IEC 60811-501 |
| ■ After ageing in air oven 240h at 180°C *** | Unit | Typical value | Test method |
| Variation in tensile strength | % | + 27.8 | IEC 60811-401 |
| Variation in elongation at break | % | - 23.8 | IEC 60811-401 |
| ■ After ageing in air oven 672h at 155°C *** | Unit | Typical value | Test method |
| Variation in tensile strength | % | + 32.2 | IEC 60811-401 |
| Variation in elongation at break | % | - 6.3 | IEC 60811-401 |

THERMAL PROPERTIES ***

| ■ Hot set test at 250°C / 15min / 0,2 MPa | Unit | Typical value | Test method |
|---|------|---------------|---------------|
| Elongation under load | % | 28 | IEC 60811-507 |
| Residual elongation | % | 8 | IEC 60811-507 |

BURNING PROPERTIES *

| ■ Main burning properties | Unit | Typical value | Test method |
|---------------------------|-------|---------------|---------------|
| LOI | % | 31 | ASTM D 2863 A |
| Temperature Index | °C | 300 | NES 715 |
| ■ Acid gas emission | Unit | Typical value | Test method |
| Corrosivity: pH (min.) | - | ≥4.3 | IEC 60754-2 |
| Conductivity (max.) | μS/mm | ≤10 | IEC 60754-2 |

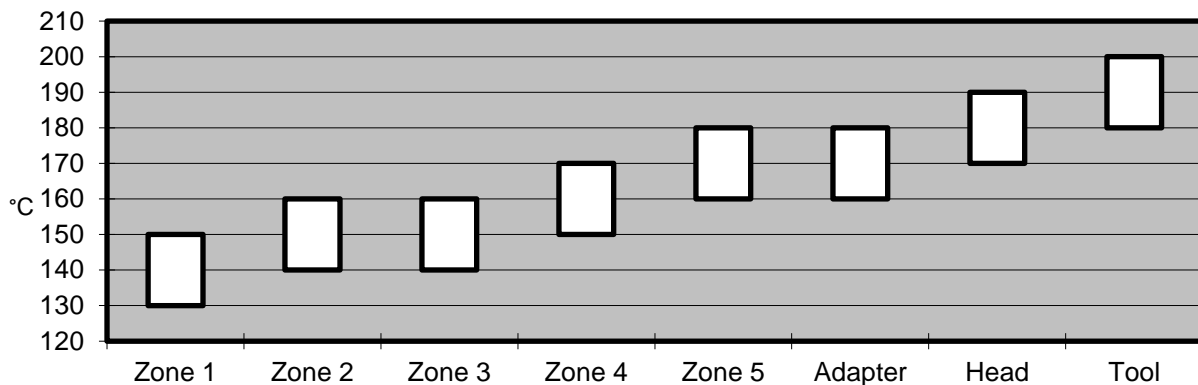
* pressed plaques, 155°C / 5 min.

** extruded tapes

*** crosslinked extruded tapes 150 kGy

PROCESSING GUIDE

- **Extruder Type** Standard HFFR extruders.
- **Screw configuration** Low compression screw with L/D of 20 to 25 and compression ratio of 1:1.2
- **Temperature profile extruder** The profile shown below may vary slightly depending on extruder type, head design & output.



- **Maximum mass temperature** 220-230°C
- **Drying** Predrying of Mecoline Compounds is normally not necessary provided the compound has been stored in sealed bags under cool (max. 30°C) and dry conditions.
If Mecoline Compounds are used from open bags, predrying 4–6h at a temperature of 60–70°C is recommended.

CROSSLINKING INFORMATION

- **Recommended radiation dose** 75-150 kGy

STORAGE INFORMATION

- **Form & packaging** Pellets in sizes 2.8mm, Moisture-resistant bags (25kg) & octabins (alu-innerliner, max. 1250kg)
- **Shelf life** 1 year after production

Note: The information given in this datasheet is believed to be accurate and reliable. However, no warranty, express or implied, or guarantee is given as to the suitability, accuracy, reliability or completeness of the information. This information does not hold us liable for damages or penalties resulting from following our suggestions or recommendations.