Cable Compounds

ARCTIC COMPOUNDS - FLEXIBLE AT LOW TEMPERATURES
On-shore & off-shore Wind Energy is a growing source for renewable energy. Melos is an experienced source for premium compounds for these kind of applications.

**Mecoline S TP 1030 F**
- ATH based
- Operating temperature: -70°C to 105°C
- Shore hardness: 87A
- Tensile strength: 11.2 N/mm²
- Elongation at break: 305%
- LOI [%]: 38
- Density (g/cm³): 1.63
- Oil resistance level: ML(1+4) 160°C

**Mecoline S TP 1034 F**
- MDH based
- Operating temperature: -75°C to 105°C
- Shore hardness: 88A
- Tensile strength: 15.0 N/mm²
- Elongation at break: 220%
- LOI [%]: 40
- Density (g/cm³): 1.60
- Oil resistance level: ML(1+4) 160°C

**Common basic features**
- Flame retardant
- Low-smoke

**Special Features**
- Oil-resistant
- Flexible
- Resistant at low temperature

### Technical data sheets on www.cablecompoundfinder.com

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**Mecoline S TP 1034 F**: The MDH based, flame retardant, halogen-free and low-smoke, thermoplastic allround compound for shipboard and windmill cables. Extraordinary oil-resistant, highly flexible and very flexible at low temperature.

### Mecoline S TP 1034 F: Burning test results [DIN EN 50399]

**Tested construction:**
- H05Z1Z1-F

- Sheathing compound: Mecoline S TP 1034 F
- Insulation: thermoplastic, flexible HFFR
- No bedding compound

**Video:** Burning test acc. to UL 94

**MDH based:** Top burning properties

<table>
<thead>
<tr>
<th>Criterion</th>
<th>Measured value</th>
<th>Evaluation criteria to reach class B2s1d0</th>
</tr>
</thead>
<tbody>
<tr>
<td>FS Flame spread</td>
<td>0.85 m</td>
<td>≤ 1.50 m</td>
</tr>
<tr>
<td>THR1200s Total heat release</td>
<td>5.0 MJ</td>
<td>≤ 15 MJ</td>
</tr>
<tr>
<td>HRRmax Max. heat release rate</td>
<td>17.3 kW</td>
<td>≤ 30 kW</td>
</tr>
<tr>
<td>FIGRA Fire growth rate</td>
<td>67.9 Ws</td>
<td>≤ 120 Ws</td>
</tr>
<tr>
<td>SPRmax Max. smoke production rate</td>
<td>0.040 m²/s</td>
<td>≤ 1.5 m²/s</td>
</tr>
<tr>
<td>TSP1200s Total smoke production</td>
<td>11.3 m²</td>
<td>≤ 50 m²</td>
</tr>
<tr>
<td>Burning droplets</td>
<td>d0</td>
<td>none within 20 minutes</td>
</tr>
</tbody>
</table>

Class **B2s1d0** according to DIN EN 50399

### Mecoline S TP 1034 F: Oil & media resistance [IEC 60811-404]

<table>
<thead>
<tr>
<th>Fluid/Medium</th>
<th>Time of immersion (h)</th>
<th>Conditions (°C)</th>
<th>Variation in tensile strength (%)</th>
<th>Variation in elongation at break (%)</th>
<th>Variation in weight (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>IRM 902</td>
<td>1440</td>
<td>80</td>
<td>-6,7</td>
<td>-15,5</td>
<td>+12,0</td>
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<tr>
<td></td>
<td>168</td>
<td>100</td>
<td>-3,3</td>
<td>-16,8</td>
<td>+9,0</td>
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<tr>
<td></td>
<td>100</td>
<td>150</td>
<td>-26,0</td>
<td>+5,0</td>
<td>+17,0</td>
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<tr>
<td>IRM 903</td>
<td>168</td>
<td>70</td>
<td>-10,0</td>
<td>-23,6</td>
<td>+12,0</td>
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<tr>
<td>Diesel</td>
<td>24</td>
<td>23</td>
<td>-11,3</td>
<td>-14,5</td>
<td>+5,0</td>
</tr>
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<td></td>
<td>24</td>
<td>100</td>
<td>-31,3</td>
<td>-15,5</td>
<td>+18,0</td>
</tr>
</tbody>
</table>

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Use our app to find the right compound:
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