

# Mecoline S TP 1006 F

Thermoplastic

Melos GmbH

Message:

Halogen-free, low smoke, thermoplastic, highly flame retardant compound for the sheathing of low and medium voltage cables in General Installation applications.

| General Information                        |                           |          |              |
|--------------------------------------------|---------------------------|----------|--------------|
| Additive                                   | Flame Retardant           |          |              |
| Features                                   | Flame Retardant           |          |              |
|                                            | Halogen Free              |          |              |
|                                            | Low Smoke Emission        |          |              |
| Uses                                       | Cable Jacketing           |          |              |
|                                            | Low Voltage Insulation    |          |              |
|                                            | Medium Voltage Insulation |          |              |
|                                            | Wire & Cable Applications |          |              |
| Agency Ratings                             | BS 6724                   |          |              |
|                                            | BS 7655:6.1 Type LTS 2    |          |              |
|                                            | CEI 2011 M1               |          |              |
|                                            | EN 50363-8 TM7            |          |              |
|                                            | IEC 60092-359 SHF-1       |          |              |
|                                            | NFC 32-323                |          |              |
|                                            | VDE 0207 part 24 HM2      |          |              |
|                                            | VDE 0207 part 24 HM4      |          |              |
|                                            | VDE 0250 part 215 HM5     |          |              |
|                                            | VDE 0276 part 604 HM4     |          |              |
| RoHS Compliance                            | RoHS Compliant            |          |              |
|                                            |                           |          |              |
|                                            |                           |          |              |
| Forms                                      | Pellets                   |          |              |
| Processing Method                          | Extrusion                 |          |              |
| Physical                                   | Nominal Value             | Unit     | Test Method  |
| Density                                    | 1.56                      | g/cm³    | ISO 1183/A   |
| Melt Mass-Flow Rate (MFR) (160°C/21.6 kg)  | 5.0                       | g/10 min | ISO 1133     |
| pH                                         | > 4.5                     |          | DIN VDE 0472 |
| Hot Pressure Test - penetration 6h at 90°C | 27                        | %        | DIN VDE 0472 |
| Temperature Index                          | 280                       | °C       | ASTM D2863   |
| Conductivity                               | < 10.0                    | µS/mm    |              |

|                                          |                      |             |                    |
|------------------------------------------|----------------------|-------------|--------------------|
| Head Temperature                         | 140 to 160           | °C          |                    |
| Extruder Screw L/D Ratio                 | 20.0:1.0 to 25.0:1.0 |             |                    |
| Extruder Screw Compression Ratio         | 1.0:1.2              |             |                    |
| <b>Hardness</b>                          | <b>Nominal Value</b> | <b>Unit</b> | <b>Test Method</b> |
| Shore Hardness (Shore D)                 | 50                   |             | ISO 7619           |
| <b>Mechanical</b>                        | <b>Nominal Value</b> | <b>Unit</b> | <b>Test Method</b> |
| Tensile Stress                           | 10.3                 | MPa         | IEC 811-1-1        |
| Tensile Strain (Break)                   | 180                  | %           | IEC 811-1-1        |
| <b>Aging</b>                             | <b>Nominal Value</b> | <b>Unit</b> | <b>Test Method</b> |
| Change in Tensile Strength in Air        |                      |             | IEC 811-1-2        |
| 100°C, 240 hr                            | -9.7                 | %           |                    |
| 120°C, 168 hr                            | 1.9                  | %           |                    |
| Change in Tensile Strain at Break in Air |                      |             | IEC 811-1-2        |
| 100°C, 240 hr                            | 11                   | %           |                    |
| 120°C, 168 hr                            | 11                   | %           |                    |
| <b>Thermal</b>                           | <b>Nominal Value</b> | <b>Unit</b> | <b>Test Method</b> |
| Brittleness Temperature                  | -20.0                | °C          | ASTM D746          |
| <b>Electrical</b>                        | <b>Nominal Value</b> | <b>Unit</b> | <b>Test Method</b> |
| Surface Resistivity <sup>1</sup>         | > 1.0E+12            | ohms        | DIN VDE 0303       |
| Volume Resistivity <sup>2</sup>          | > 1.0E+12            | ohms·cm     | DIN VDE 0303       |
| <b>Flammability</b>                      | <b>Nominal Value</b> | <b>Unit</b> | <b>Test Method</b> |
| Oxygen Index                             | 45                   | %           | ASTM D2863         |
| <b>Extrusion</b>                         | <b>Nominal Value</b> | <b>Unit</b> |                    |
| Cylinder Zone 1 Temp.                    | 110 to 130           | °C          |                    |
| Cylinder Zone 2 Temp.                    | 115 to 135           | °C          |                    |
| Cylinder Zone 3 Temp.                    | 120 to 140           | °C          |                    |
| Cylinder Zone 4 Temp.                    | 125 to 145           | °C          |                    |
| Cylinder Zone 5 Temp.                    | 130 to 150           | °C          |                    |
| Adapter Temperature                      | 135 to 155           | °C          |                    |
| Die Temperature                          | 150 to 170           | °C          |                    |
| <b>NOTE</b>                              |                      |             |                    |
| 1.                                       | 16h at 20°C, 500V    |             |                    |
| 2.                                       | 16h at 20°C, 500V    |             |                    |

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