

megolon S540E

Sheathing Grade Compound

DESCRIPTION

MEGOLON® S540E is a thermoplastic, halogen free cable sheathing compound which exhibits an excellent level of fire retardancy. This product is specifically aimed at designs of cables requiring a good degree of flexibility and the ability to meet the more stringent fire test specifications.

APPLICATIONS

- CENELEC: EN 50290-2-27
- Germany: DIN VDE 0207, part 24, type HM2

TECHNICAL PROPERTIES

| Primary Properties | Unit | Nominal Value | Test Method |
|---------------------------------|------------|---------------|---------------|
| Tensile strength | MPa | 11.5 | IEC 60811-1-1 |
| Elongation at break | % | 200 | IEC 60811-1-1 |
| Oxygen Index | % | 45 | ISO 4589-2 |
| Density | g/cc | 1.57 | ASTM D-792 |
| Melt Flow Rate (21.6 kg, 150°C) | g/10 mins. | 6 | ISO 1133 |

Mechanical Properties

| | | | |
|---|-----|------|---------------|
| Tensile strength after 7 days at 100°C | MPa | 14.2 | IEC 60811-1-2 |
| Variation | % | +23 | |
| Elongation at break after 7 days at 100°C | % | 142 | IEC 60811-1-2 |
| Variation | % | -30 | |

Thermomechanical Properties

| | | | |
|----------------------|---|----|---------------|
| Hot pressure at 80°C | % | 35 | IEC 60811-3-1 |
|----------------------|---|----|---------------|

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Fire and Smoke Test Properties

| | Unit | Nominal Value | Test Method |
|----------------------------------|---------|---------------|-------------|
| Flammability temperature index | °C | 330 | ISO 4589-3 |
| Halogen acid gas evolution | % | ZERO | IEC 60754-1 |
| Corrosivity of gases | | | IEC 60754-2 |
| pH | | 5.5 | |
| Conductivity | µS/cm | 7.5 | |
| Smoke density – Flaming mode | Ds max | 90 | ASTM E-662 |
| Time to maximum | minutes | 12 | |
| Smoke density – Non-flaming mode | Ds max | 199 | ASTM E-662 |
| Time to maximum | minutes | 13 | |
| Toxicity index | | 0.4 | NES 713 |

Oil Resistance Properties

| Medium | Temperature | Duration | Tensile Strength (MPa) | Variation (%) | Elongation at Break (%) | Variation (%) |
|---------|-------------|----------|------------------------|---------------|-------------------------|---------------|
| IRM 902 | 23°C | 7 days | 12 | +5 | 220 | +10 |
| IRM 902 | 70°C | 4 hours | 9.2 | -20 | 250 | +25 |
| IRM 903 | 23°C | 7 days | 7.5 | -35 | 160 | -20 |

Other Properties

| | Unit | Nominal Value | Test Method |
|----------|---------|---------------|-------------|
| Hardness | Shore D | 55 | ASTM D-2240 |

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