

# Isomid

## Wire insulations and coatings

### Datasheet

Isomid is a Thermal Class 200, THEIC modified, polyesterimide wire enamel that meets the requirements of NEMA MW1000, MW30 or MW74 when applied as a basecoat, MW76 (when applied with a Nylon topcoat), and MW35 or MW73 (when applied with an Aminide topcoat). Topcoat applications serve the purpose of reducing coefficient of friction during winding/insertion.

These coating combinations can be applied as a basecoat when self-bonding magnet wire is required for a customer's specific coil winding/forming operation.

Isomid is not directly solderable and must be removed prior to completing electrical component connections.

### Electrical properties

|                                   | NEMA<br>MW1000 | ASTM<br>D1676 | IEC 851    | JIS C3003 | MW<br>30/74-C<br>(Heavy),<br>18 AWG | MW<br>76 C<br>(Heavy),<br>18 AWG | MW<br>35/73-C<br>(Heavy),<br>18 AWG |
|-----------------------------------|----------------|---------------|------------|-----------|-------------------------------------|----------------------------------|-------------------------------------|
| Dielectric strength @ 25°C        | 3.8.1.1        | 69-75         | 13-4.2,3,4 | 11.1      | 13.0 kV                             | 11.7 kV                          | 13.5 kV                             |
| Dissipation factor @ 170°C - 1kHz |                | 107-114       |            |           | 0.06                                | 0.08                             | 0.05                                |
| Tangent delta (DIN)               |                |               |            |           | 190°C                               | 55/<br>186°C                     | 192°C                               |

### Mechanical properties

|                           | NEMA<br>MW1000 | ASTM<br>D1676 | IEC 851 | JIS C3003 | MW<br>30/74-C<br>(Heavy),<br>18 AWG | MW<br>76 C<br>(Heavy),<br>18 AWG | MW<br>35/73-C<br>(Heavy),<br>18 AWG |
|---------------------------|----------------|---------------|---------|-----------|-------------------------------------|----------------------------------|-------------------------------------|
| Adherence and flexibility |                |               |         |           |                                     |                                  |                                     |

|                         |          |         |         |       |       |       |
|-------------------------|----------|---------|---------|-------|-------|-------|
| No snap                 | 3.3.1.1  | 141-148 | 8.1     | Pass  | Pass  | Pass  |
| 20% snap                | 3.3.1.1  | 141-148 | 8.5.1.1 | Pass  | Pass  | Pass  |
| Cut-through temperature | 3.50.1.1 | 61-68   |         | 370°C | 317°C | 360°C |

Disclaimer:

Recommendations are for guidance only, and the suitability of a material for a specific application can be confirmed only when we know the actual service conditions. Continuous development may necessitate changes in technical data without notice. This datasheet is only valid for Alleima materials.