
Melinex® 238

Melinex® 238 is a flexible, white polyester film with a matt surface.

Attributes

According to its UL classification, Melinex® 238 has a relative thermal index of 140 °C, a mechanical RTI of 130 °C and displays excellent ageing resistance compared to common polyester films with a higher oligomer content. Furthermore, Melinex® 238 displays very high dielectric strength, minimum changes to dielectric values, excellent mechanical properties and very good hydrolytic stability. The half life period of the mechanical properties is twice as high.

Application

Melinex® 238 was specially developed for use in electric motors with particular chemical exposure as slot insulation, phase insulation and wedges. Due to its low oligomer extraction it is particularly suitable for use in hermetic motors with refrigerants.

Standards

- UL approved, file no. E 93687

Delivery forms

Film thicknesses in µm:

125, 190, 250, 350

Melinex® 238 can be supplied:

- in slit rolls from widths of 6 mm (depending on thickness) and above
- in rolls up to widths of 1100 mm

Overall diameter of the slit rolls/ rolls

approx. 240, 330 or 450 mm.

Feathering:

- depth approx. 1 - 12 mm, distance approx. 1 - 10 mm
- from widths of 10 to 240 mm and thickness of 0.125 mm

Base

Polyethylenterephthalate

| Mechanical | Unit of measure | | | | | Test method |
|----------------------------------|-----------------|-----|-----|-----|-----|-----------------------|
| Total thickness | µm | 125 | 190 | 250 | 350 | |
| Oligomer extraction | % | 0.7 | 0.7 | 0.7 | 0.7 | 24 h in boiling Xylen |
| Tensile strength longitudinal | N/mm² | 200 | 200 | 200 | 190 | ASTM D 882 |
| Tensile strength transversal | N/mm² | 200 | 200 | 200 | 180 | ASTM D 882 |
| Elongation at break longitudinal | % | 160 | 160 | 180 | 200 | ASTM D 882 |
| Elongation at break transversal | % | 160 | 160 | 180 | 200 | ASTM D 882 |

| Thermal | Unit of measure | Conditions |
|------------------------|-----------------|-----------------|
| Total thickness | µm | |
| Shrinkage longitudinal | % | 5 min. at 190°C |
| Shrinkage transversal | % | 5 min. at 190°C |

| Thermal | Unit of measure | | | | | Test method |
|-----------------|-----------------|-----|-----|-----|-----|-------------|
| Total thickness | µm | 125 | 190 | 250 | 350 | |

The information on this data sheet is based on the information provided by our supplier. It does not represent any specification or agreements regarding conditions or properties. The indicated values are standard values. Deviations from those values due to production and application cannot be excluded. The information on this data sheet is addressed to experts who use it at their own discretion and at their own risk. We do not guarantee results, or accept liability for the indicated specifications or for results obtained based on the specifications. Please contact us for more detailed information. Non-toxic and toxic substances are listed on the safety data sheet.
Updated 10/18

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| Thermal | Unit of measure | | | | | Test method |
|------------------------|-----------------|-----|-----|-----|-----|---------------|
| Shrinkage longitudinal | % | 3.6 | 3.0 | 2.5 | 2.5 | ASTM D1204-78 |
| Shrinkage transversal | % | 2.8 | 2.5 | 2.0 | 1.5 | ASTM D1204-78 |

| Electrical | Unit of measure | |
|---------------------|-----------------|------------------|
| Total thickness | µm | 125 |
| Volume resistivity | Ω x m | 10 ¹⁴ |
| Dielectric strength | kV | 16 |

| Electrical | Unit of measure | | | | Test method |
|---------------------|-----------------|------------------|------------------|------------------|---|
| Total thickness | µm | 190 | 250 | 350 | |
| Volume resistivity | Ω x m | 10 ¹⁴ | 10 ¹⁴ | 10 ¹⁴ | ASTM D257-83 (100V DC at 25 °C and 1000s) |
| Dielectric strength | kV | 20 | 25 | 26 | |

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