

6023 FR Polyester Film

1. GENERAL INFORMATION

FR PET-film 6023 is a biaxial oriented polyethylene terephthalate (PET) film produced through melting, casting and stretching. It has good electrical insulating properties, physical and mechanical properties and dimensional stability. This product is also flame-retardant and halogen-free. The film is applicable for electrical insulation of electric motors.

This product is also UL94 VTM-2 recognized for its flame-resistance.

2. TECHNICAL VALUES

Nominal Thickness			[μm]	125	190	250
Area Weight	IEC 60674-2	[g/m ²]		175	266	350
Elongation at break (MD and TD)	IEC 60674-2	[%]		≥80	≥80	≥80
Tensile Strength (MD and TD)	IEC 60674-2	[%]		≥140	≥110	≥110
Thermal Shrinkage (MD and TD)	IEC 60674-2	[%]		≤2	≤2	≤2
Volume Resistivity	IEC 60674-2	[$\Omega \cdot \text{m}$]		10	14	18
Relative Dielectric Constant (50Hz)	IEC 60674-2	-		2,9~3,4	2,9~3,4	2,9~3,4
Dielectric Dissipator Factor (50Hz)	IEC 60674-2	-		≤5x10 ⁻³	≤5x10 ⁻³	≤5x10 ⁻³
Melting Point	IEC 60674-2	[°C]		≥256	≥256	≥256
Surface Resistivity	IEC 60674-2	[Ω]		≥1x10 ¹³	≥1x10 ¹³	≥1x10 ¹³
Flammability	IEC 60674-2	-		94VTM-2	94VTM-2	94VTM-2

Nominal Thickness			[μm]	300	350
Area Weight	IEC 60674-2	[g/m ²]		420	490
Elongation at break (MD and TD)	IEC 60674-2	[%]		≥80	≥80
Tensile Strength (MD and TD)	IEC 60674-2	[%]		≥110	≥110
Thermal Shrinkage (MD and TD)	IEC 60674-2	[%]		≤2	≤2
Volume Resistivity	IEC 60674-2	[$\Omega \cdot \text{m}$]		22	25
Relative Dielectric Constant (50Hz)	IEC 60674-2	-		2,9~3,4	2,9~3,4
Dielectric Dissipator Factor (50Hz)	IEC 60674-2	-		≤5x10 ⁻³	≤5x10 ⁻³
Melting Point	IEC 60674-2	[°C]		≥256	≥256
Surface Resistivity	IEC 60674-2	[Ω]		≥1x10 ¹³	≥1x10 ¹³
Flammability	IEC 60674-2	-		94VTM-2	94V-2

3. STORAGE AND AVAILABILITY

- Shelf life is 18 months from EXW date in original packing and under normal conditions (room temperature, 50% relative humidity)
- Standard widths are 1000 and 1016mm
- Available from 10 mm width upwards

4. NOTES

All statements, technical information, and recommendations contained in this document are based on tests or experience that we believe are reliable. However, many factors beyond our control can affect the use and performance of a product in a particular application, including the conditions under which the product is used and the time and environmental conditions in which the product is expected to perform. Since these factors are uniquely within the user's knowledge and control, it is essential that the user evaluates the product to determine whether it is fit for a particular purpose and suitable for the user's method or application.

Values presented have been determined by standard test methods and are average values not meant to be used for specification purposes. Tolerances on thickness and area weight are +/- 15% if not stated differently.

All questions of warranty and liability relating to our products are governed by the terms of the respective sale subject, where applicable, to the prevailing law.

5. VERSIONING

Rev. 4 dated 16/07/2026