

Product Description

RowTec® FR is a thin gauge, flame retardant polycarbonate film available in clear and black. It carries a UL-94 VTM-0 rating for 0,076 mm – 0,102 mm clear film. Beginning at 0,127 mm up to 0,762 mm, RowTec® FR carries a UL-94 V-0 rating for clear film. For black film, the UL-94 V-0 rating applies to a thickness range of 0,406 mm – 0,609 mm.

Surface Area

It is available in a variety of textures.

Application Area

Common uses include barrier insulation, backlit panels, commercial business equipment, electronic shielding, and flame retardant nameplates and labels.

Technical Data	Test-Method	Units	Value
Physical			
Specific Gravity	ASTM D-792	g / cm ³	1,32
Water Absorption at 24 hours	ASTM D-570	%	0,28
Optical			
Refractive Index @ 25°C	ASTM D-542	ND	1,60
Light Transmission ¹	ASTM D-1003	%	89
Yellowness Index ¹	ASTM D-1925	---	< 1
Mechanical			
Tensile Strength, Break ¹	ASTM D-882	MPa	60
Tensile Strength, Yield ¹	ASTM D-882	MPa	70
Tensile Elongation, Break ¹	ASTM D-882	%	130
Tensile Modulus of Elasticity ¹	ASTM D-882	MPa	2.200
Tear Strength, Initial ¹	ASTM D-1004	N/μm	0,3
Tear Strength, Propagation ¹	ASTM D-1922	g / μm	2
Impact Strength, Gardner ²	ASTM D-5420	J	28
Thermal			
Deflection Temperature under Flexural Load @ 1.8 MPa	ASTM D-648	°C	142
Specific Heat Capacity @ 25 °C	ASTM E-1269	J/g/°C	1,26
Thermal Conductivity	ASTM D-5470	W/m °C	0,20
Coefficient of Thermal Expansion	ASTM E-831	cm / cm / °C	5.8 x 10 ⁻⁵
Glass Transition Temperature	ASTM D-3418	%	152
Brittleness Temperature	ASTM D-746	°C	-135
Vicat Softening Temperature	ASTM D-1525	°C	174
Electrical			
Dielectric Strength @ 22°C in oil, short time ¹	ASTM D-149	kV/cm	590
Dielectric Constant 60 Hz /1 MHz	ASTM D-150	---	2,9 / 2,8
Dissipation Factor 60 Hz /1 MHz	ASTM D-150	---	0,0026 / 1,17
Volume Resistivity	ASTM D-257	Ω-cm	10 ¹⁷
Surface Resistivity	ASTM D-257	Ω-cm ²	10 ¹⁵
Arc Resistance, Tungsten Electrodes	ASTM D-495	sec	62
Flammability			
Flammability Classification (Clear 75 – 100 μm)	UL 94	---	VTM-0
Flammability Classification (Clear 125 – 762 μm)	UL 94	---	V-0
Flammability Classification (Black 410 – 610 μm)	UL 94	---	V-0

Footnotes: (1) Value for 0,025 mm film (2) Value for 0,762 mm film

IMPORTANT NOTICE

All RowTec® products are subject to careful quality control throughout the manufacturing process and are warranted to be of merchantable quality and free from manufacturing defects. Published information concerning RowTec® products is based upon research, which the Company believes to be reliable although such information does not constitute a warranty. Because of the variety of uses of RowTec® products and the continuing development of new applications, the purchaser should carefully consider the suitability and performance of the product for each intended use, and the purchaser shall assume all risks regarding such use. All specifications are subject to change without prior notice.

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