

## RAYDEL® M26 SPECIFICATION MICROWAVE TRANSMISSIVE COMPOSITE

RAYDEL® is a microwave transmissive composite designed specifically for use in RF applications. The composite is made of fiberglass and polytetrafluoroethylene (PTFE). The "M" group incorporates a flat, plain weave in the structural substrate. M26 is available in widths up to 158", making it a popular choice for one piece planar radomes.

TYPICAL PROPERTIES	UNITS	VALUE	TEST METHOD
Weight	oz./sq. yd.	22.5 nominal	FTMS 191A-5041
Thickness	inches	0.018 ± 0.002	FTMS 191A-5030 (para 4.1.3)
Strip Tensile Strength Warp (Dry) Fill (Dry)	lbs./in.	375 min average 300 min single 375 min average 300 min single	FTMS 191A-5102 (Strain Rate: 2 ins./minute)
Strip Tensile Strength After Flexfold Warp (Dry) Fill (Dry)	lbs./in.	350 min average 275 min single 350 min average 275 min single	CHEMFAB LP-78
Tear Strength (Trapezoidal) Warp Fill	lbs.	25 min average 22 min single 33 min average 22 min single	FTMS 191A-5136
Coating Adhesion Dry	lbs./in.	7 min average 6 min single	CHEMFAB LP-62
Uniaxial Elongation (at 40 lbs./in.) Warp Fill	%	2.0 max average 5.0 max average	CHEMFAB LP-59
Dielectric Constant		2.8 nominal	Interferometer @ X-band
Loss Tangent		0.005 nominal	Interferometer @ X-band
Water Absorption	%	Less than 0.5	48 hr. total immersion
Hydrophobic Contact Angle	degrees	90 + nominal	Keyeness
Incombustibility	seconds	0 to flameout	NFPA 701

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