

RadarWave™

RadarWave™, an innovative family of prepreg materials used to manufacture advanced radome systems principally for aerospace and defense applications. RadarWave materials provide cost effective technical alternatives to the esoteric and higher cost materials traditionally used to manufacture advanced radome systems.

Key Features & Benefits

- Enhanced electrical properties
- Available in thin fabrics / lightweight fabrics for flexibility in radome design
- Various weave styles available
- Available using several Park Aerospace grade resin systems

Product Forms

- Available in up to 60" wide
- High performance glass
-

Physical Properties

	Epoxy		Cyanate Ester	
	E-761 RW – 70	E-761 RW - 100	V-376 RW – 70	V-376 RW - 100
Resin Content (Dry) %	44	40	47	40
Gel Time at 325°F	323	354	119	128
Flow at 325°F, 50 psi, 8	16	12	18	15
Cured Ply Thickness,	0.0030	0.0034	0.0029	0.0032

RadarWave™

Mechanical Properties

Test Property	Test Method	Test Temp	E-761 RW-70	E-761 RW-100	V-376 RW-70	V-376 RW-100
			Avg / Min. Ind	Avg / Min. Ind	Avg / Min. Ind	Avg / Min. Ind
0° Tensile Strength, Ksi	D3039	RTD	49 / 46	57 / 56	50 / 44	61 / 60
		ETW	37 / 36	43 / 41	31 / 25	53 / 50
0° Tensile Modulus, Msi	D3039	RTD	2.7 / 2.2	2.5 / 2.5	2.9 / 2.8	3.4 / 3.4
		ETW	1.8 / 1.8	2.1 / 2.1	3.1 / 2.9	3.2 / 3.1
0° Compressive Strength, Ksi	D695	RTD	69 / 66	60 / 59	86 / 79	75 / 72
		ETW	35 / 32	35 / 33	63 / 51	57 / 53
0° Compressive Modulus, Msi	D695	RTD	2.8 / 2.6	3.0 / 2.9	2.9 / 2.9	3.3 / 3.1
		ETW	2.6 / 2.4	2.9 / 2.9	3.1 / 2.9	3.2 / 2.5
In Plane Shear Strength, Ksi	D3518	RTD	16 / 16	19 / 19	16 / 15	18 / 18
		ETW	10 / 9	11 / 10	12 / 12	14 / 13
In Plane Shear Modulus, Msi	D3518	RTD	0.4 / 0.4	-	0.5 / 0.5	0.6 / 0.6
		ETW	-	-	0.4 / 0.4	0.5 / 0.5
Open Hole Compression Strength, Ksi	D6484	RTD	29 / 28	30 / 29	32 / 31	32 / 31
		ETW	26 / 23	23 / 21	28 / 27	27 / 27
Double Shear Bearing Strength, Ksi	D5961	RTD	61 / 59	77 / 76	58 / 57	71 / 70
		ETW	60 / 58	71 / 70	50 / 49	60 / 59
Onset Glass Transition Temperature, °F	SRM 18R-94	RTD	228	237	391	382
		ETW	198	196	302	299

* RTD = 70 +/- 10F; ETW = 180 +/- 5F after saturation for 5 mins; conditioned at 145°F/85%RH to 0.05% over a span of 7 days

Aerospace Composite Materials

RadarWave™

Electrical Properties

Dk				Df		
Material	Ku-Band	K-Band	Q-Band	Ku-Band	K-Band	Q-Band
V-376/RW-70	3.56	3.56	3.54	0.008	0.0076	0.0084
V-376/RW-100	3.67	3.66	3.66	0.0075	0.0075	0.0083
E-761/RW-70	3.74	3.73	3.72	0.0139	0.0134	0.0140
E-761/RW-100	3.81	3.81	3.79	0.0121	0.0120	0.0130

For Processing Guidelines, Shelf-Life, Out-time and Storage recommendations:

Go here: [E-761 Technical Data Sheet](#)

Go here: [V-376 Technical Data Sheet](#)

For Information about Park's materials
Please call +1.316.283.6500
www.parkaerospace.com

All test data provided are typical values and not intended to be specification values. For review of critical specification tolerances, please contact a company representative directly.

Park Aerospace Corp. reserves the right to make changes without notice to any products described herein. Park does not assume any liability arising out of the application or use of any product described herein; and it does not grant any license under its patent or other rights or any such rights of others. Park also disclaims all warranties whether expressed, implied or statutory, including implied warranties of merchantability or fitness for a particular purpose.

Aeroglide®, ALPHA STRUT™, CoreFix®, Easycure E-710®, Electroglide®, Electrovue™, Peelcote™, Powerbond™, RadarWave™, SIGMA STRUT™ and Tin City Aircraft WorksSM are trademarks or servicemarks of Park Aerospace Corp.