RF Matching Transformers -- Insulation Requirements

The following table shows the approximate peak voltages and currents appearing across the primary (Zin) and secondary (Zout) windings of an RF matching transformer for various impedance ratios and power levels. Remember that these are RF voltages, so insulation should be chosen to suit both frequency and voltage.

Zin (Ω)	Zout (Ω)	Z Ratio	RF Power	Pri Vp-p / Ip-p	Sec Vp-p / Ip-p
50	12.5	4:1	1W	20 / 0.4	10 / 0.8
			10W	62.5 / 1.25	31.25 / 2.5
			100W	200 / 4	100 / 8
			1000W	625 / 12.5	312.5 / 25
50	50	1:1	1W	20 / 0.4	20 / 0.4
			10W	62.5 / 1.25	62.5 / 1.25
			100W	200 / 4	200 / 4
			1000W	625 / 12.5	625 / 12.5
50	200	1:4	1W	20 / 0.4	40 / 0.2
			10W	62.5 / 1.25	125 /0.625
			100W	200 / 4	400 / 1.98
			1000W	625 / 12.5	1250 / 6.25
50	450	1:9	1W	20 / 0.4	60 / 0.13
			10W	62.5 / 1.25	188 / 0.42
			100W	200 / 4	600 / 1.3
			1000W	625 / 12.5	1880 / 4.2
50	800	1:16	1W	20 / 0.4	80 / 0.1
			10W	62.5 / 1.25	250 / 0.31
			100W	200 / 4	800 / 1.0
			1000W	625 / 12.5	2500 / 3.1