

## RF Applications

### RF MATERIAL CHART

Core Material	Permeability	Toroidal Color Code	Recommended Frequency Range
<b>Carbonyl W</b>	6	Gray	40 MHz-250 MHz
<b>Carbonyl J</b>	7	Gray	35 MHz-135 MHz
<b>Carbonyl SF</b>	8	Yellow/ Gray	10 MHz-100 MHz
<b>Carbonyl TH</b>	8.5	Gray	1 MHz-60 MHz
<b>Carbonyl E</b>	10	Red/ Gray	100 KHz-25 MHz
<b>Carbonyl C</b>	20	Gray	50 KHz-5 MHz

### FINISH

Toroidal core sizes PT 125 and PT 250A listed in this catalog are coated with Parylene C. The minimum dielectric strength is 250 volts.

Toroidal core sizes PT 280 and larger are coated with a polyurethane enamel. The cores are color-coded in accordance to material. The minimum dielectric strength is 500 volts. The typical dry film thickness is 4-7 mil, 10 mil maximum.

### Q & $\mu$ COMPARISON CHART

Core Material	Comments
<b>Carbonyl W</b>	Highest "Q" at recommended frequency range.
<b>Carbonyl J</b>	Higher "Q" than SF at recommended frequency range.
<b>Carbonyl SF</b>	Higher "Q" than TH at higher frequencies.
<b>Carbonyl TH</b>	Higher "Q" than E at higher frequencies.
<b>Carbonyl E</b>	High "Q", medium $\mu$ , high resistance, most common RF material.
<b>Carbonyl C</b>	Medium $\mu$ with high "Q".