Carbon Film Resistor (CFR) Colour code Chart

Color Name	Value As Figure	As Decimal Multiplier	Tolerance ±
Black	0	x 1	±20%
Brown	1	x 10^1	±1%
Red	2	x 10^2	±2%
Orange	3	x 10^3	-
Yellow	4	x 10^4	±5%
Green	5	x 10^5	±0.5%
Blue	6	x 10^6	±0.25%
Violet	7	x 10^7	±0.1%
Grey	8	x 10^8	±0.05%
White	9	x 10^9	±10%
Golden	-	x 10^{-1}	±5%
Silver	-	x 10^{-2}	±10%

4th Color
Tolerance Value (±%)

3rd Color
Decimal Multiplier

2nd Color
2nd Figure

1st Color
1st Figure
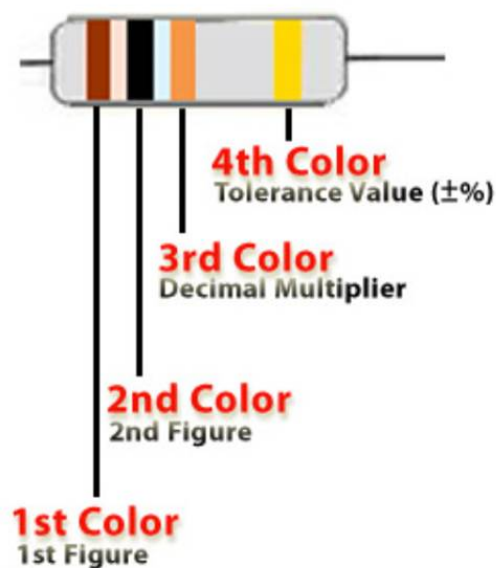
Above shown resistor's colors are Brown, Black, Orange and Golden so its value is **10 X 1000 = 10000Ω** or 10KΩ with a tolerance of ±5%

The best way to describe the code is the first two bands just represent numbers;

The first band to the left is Brown. So the first number is 1

The second band is Black. So the second number is 0

Put them together i.e. next to each other as if they had replaced the bands and you get 10, or Ten.

The third band represents the multiplier;

The third band is Orange which the code says is the number 3, so it is 10 multiplied by 10^3 and 10^3 means 1000 so 10 x 1000 = 10,000.

10,000 ohms again or preferably written as10kΩ.

You could also say the third number is the number of Zero's behind the first two numbers i.e. A one followed by a zero followed by three more zero's 1, 0, 000, again giving 10,000.

The fourth band is percentage tolerance either above or below the nominal so here we have Yellow represented by the number 5, i.e. ±5%, or Gold which is also ±5%.

Five percent of 10,000 = 500 so this particular resistor must be between 9500 ohms (9.5kΩ), lower limit or 10,500 ohms (10.5kΩ), upper limit to be declared serviceable.