



Dec. 2022 Ver. 1.3  
TDK Corporation

## Ferrite sheet for Wireless Power Transfer

Series name

**WCF95**

## WCF95

### ■ FEATURES

- 0.3mm thick Mn-Zn ferrite sheet
- Pre-cracked structure for mechanical flexibility
- High permeability ,  $\mu'=500$  with pre-cracked and low core loss based on Mn-Zn Material
- Shape/Dimension :Custom shapes, sizes and thicknesses available upon request  
Maximum size : 100mm x 66mm
- Compliant with RoHS Directive

### ■ APPLICATION

- Wireless Charging (Frequency: 100kHz to 1MHz)
- Protects system from noise (Frequency: 100kHz to 100MHz)

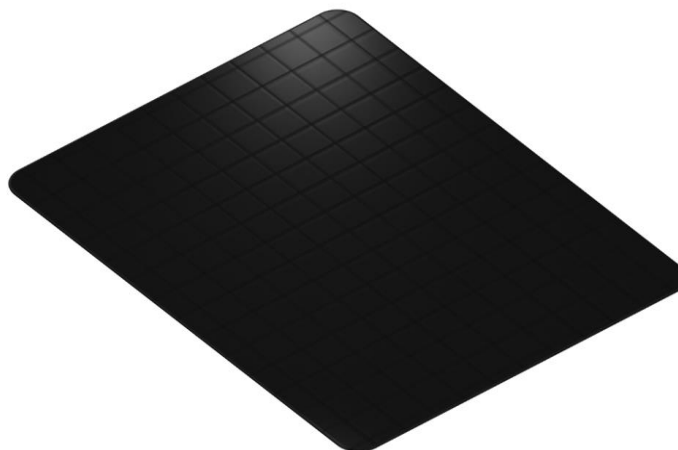
### ■ TEMPERATURE RANGE

<b>Operating temperature</b>
-40 to +125 °C

### ■ SHAPE LIST

Material name	Magnetic layer thickness (mm)	Magnetic layer dimensions (mm)	Total thickness (mm)	Total dimensions (mm)
WCF95	0.30	84 X 66	0.37	85 X 67

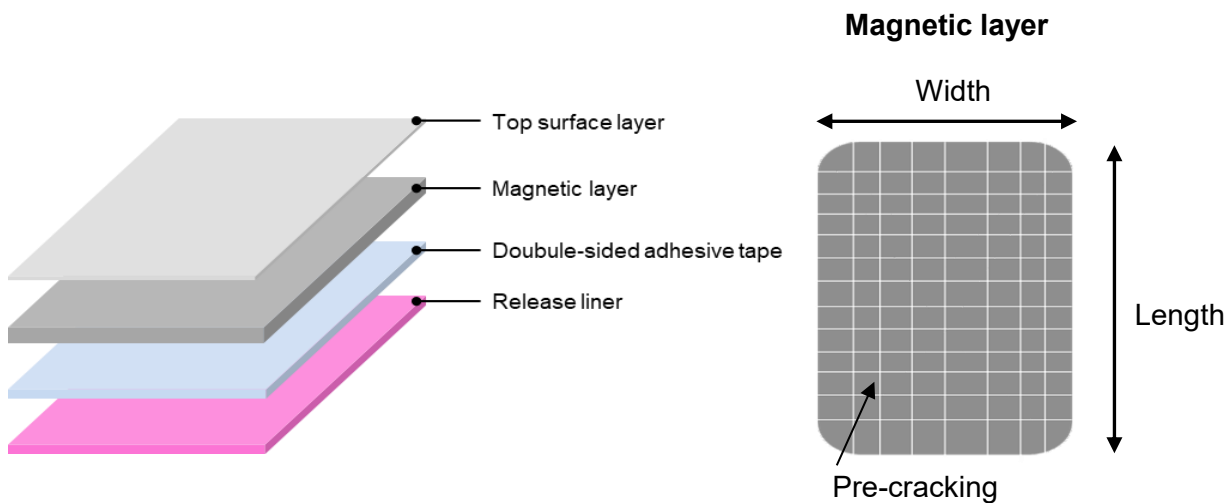
Please contact us for the customized size.



## WCF95

### ■ PART NUMBER CONSTRUCTION

WCF	95	-	3	8466	B	E	ST	01		
Series name	Material symbol		Magnetic layer thickness (mm)		Magnetic layer dimension (mm)		Top surface layer thickness (mm)	Double-sided adhesive tape thickness (mm)	Standard number	Serial number
WCF	95		3	0.3	8466	84 x 66	N	No		
							B	0.02		
							C	0.03		
							D	0.04		
							E	0.05		



### ■ STANDARD PART NUMBER LIST

Material name	Part number	Magnetic layer dimensions (mm)	Magnetic layer thickness (mm)	Total thickness (mm)
WCF95	WCF95-38466BEST01	84 X 66	0.30	0.37

(Typical)

# WCF95

## MATERIAL CHARACTERISTICS

### Material Characteristic Table

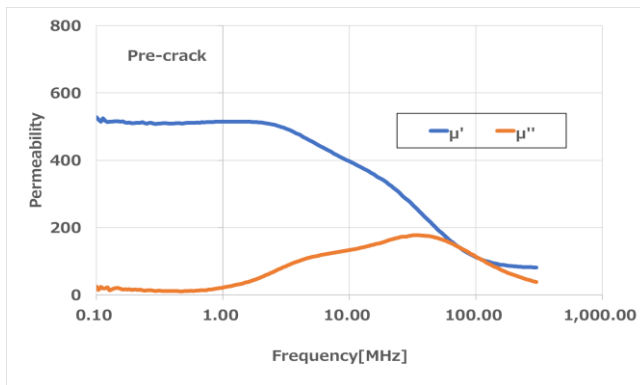
(Typical)

Material name	Relative permeability ( at 100kHz )			Surface resistivity ( ohm/sq. )
	u'	u''	u'/u''	
	WCF95	500	15	

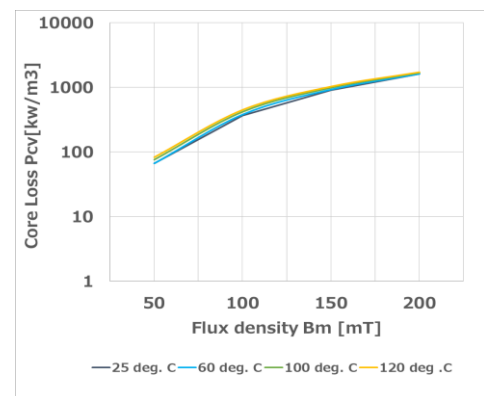
(Typical)

Material name	Core Loss P <sub>cv</sub> (kW/m <sup>3</sup> ) B=200mT 100kHz sine wave				Magnetic flux density B <sub>s</sub> (mT) H=1000A/m			
	25°C	60°C	100°C	120°C	25°C	60°C	100°C	120°C
	WCF95	1600	1610	1700	1710	530	475	410

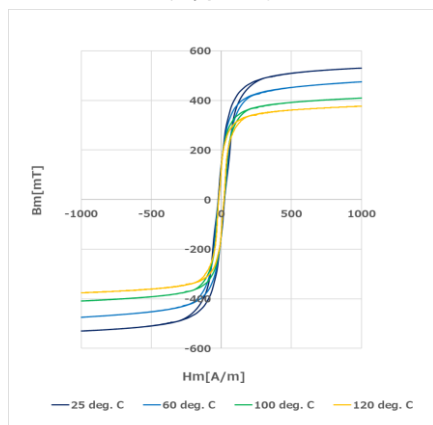
### Relative Permeability (Typical)



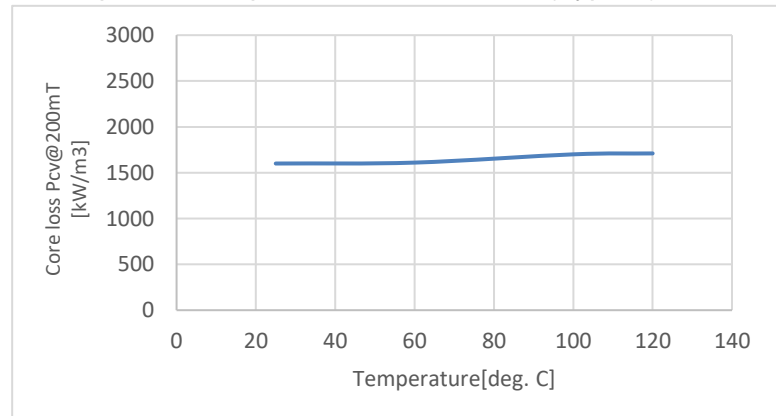
### Core Loss (Typical)



### B-H Curve (Typical)



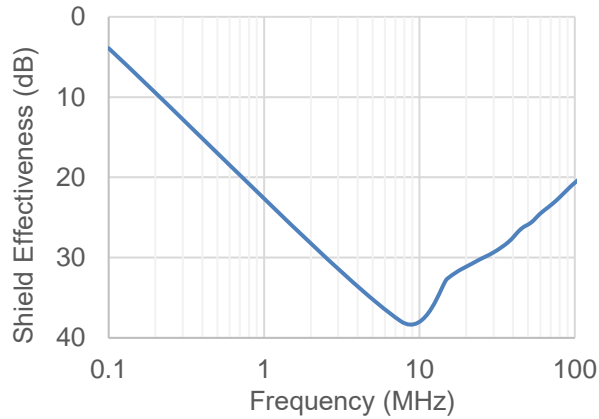
### Temperature dependence of core loss (Typical)



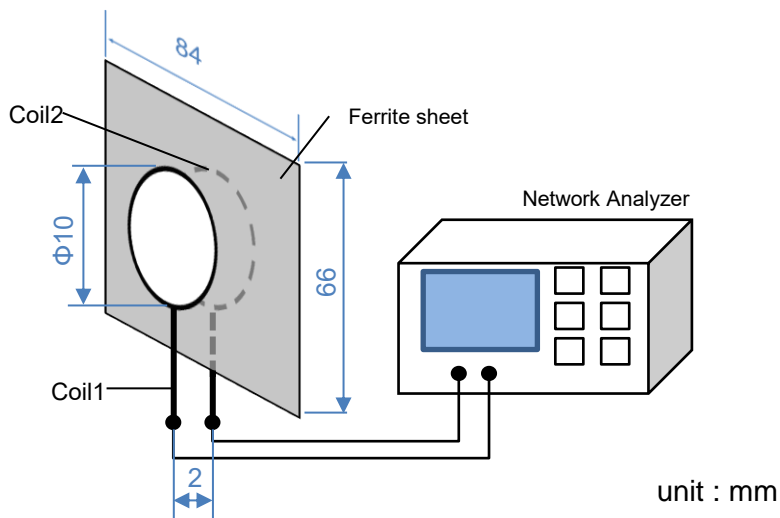
## WCF95

### ■ MATERIAL CHARACTERISTICS

#### □ SHIELDING EFFECTIVENESS (Up to 100MHz)



#### □ MEASUREMENT SETUP (Up to 100MHz)



## REMINDERS FOR USING THESE PRODUCTS

Before using these products, be sure to request the delivery specifications.

### SAFETY REMINDERS

Please pay sufficient attention to the warnings for safe designing when using these products.

#### REMINDERS

The products listed on this catalog are intended for use in general electronic equipment (AV equipment, telecommunications equipment, home appliances, amusement equipment, computer equipment, personal equipment, office equipment, measurement equipment, industrial robots) under a normal operation and use condition.

The products are not designed or warranted to meet the requirements of the applications listed below, whose performance and/or quality require a more stringent level of safety or reliability, or whose failure, malfunction or trouble could cause serious damage to society, person or property.

If you intend to use the products in the applications listed below or if you have special requirements exceeding the range or conditions set forth in the each catalog, please contact us.

1. Aerospace/aviation equipment
2. Transportation equipment ( electric trains, ships, etc.)
3. Medical equipment (excepting Pharmaceutical Affairs Law classification Class1,2)
4. Power-generation control equipment
5. Atomic energy-related equipment
6. Seabed equipment
7. Transportation control equipment
8. Public information-processing equipment
9. Military equipment
10. Electric heating apparatus, burning equipment
11. Disaster prevention/crime prevention equipment
12. Safety equipment
13. Other applications that are not considered general-purpose applications

When designing your equipment even for general-purpose applications, you are kindly requested to take into consideration securing protection circuit/device or providing backup circuits in your equipment.