



**Fair-Rite Products Corp.**

Your Signal Solution®

# Toroids (5943001401)



Part Number: 5943001401

43 TOROID

#### Explanation of Part Numbers:

- Digits 1 & 2 = Product Class
- Digits 3 & 4 = Material Grade
- 9th digit 1 = Parylene Coating, 2 = Thermo- Set Plastic Coating

**A ring configuration provides the ultimate utilization of the intrinsic ferrite material properties. Toroidal cores are used in a wide variety of applications such as power input filters, ground- fault interrupters, common- mode filters and in pulse and broadband transformers.**

All toroidal cores are supplied burnished to break sharp edges.

#### Coating Options:

- Toroids with an outside diameter of 9.5 mm (0.375") or smaller can be supplied Parylene C coated. The Parylene coating will increase the "A" and "C" dimensions and decrease the "B" dimension a maximum of 0.038 mm (0.0015"). The ninth digit of a Parylene coated toroid part number is a "1". See reference tables for the material characteristics of Parylene C. Parylene C coating is RoHS compliant.
- Toroids with an outside diameter of 9.5 mm (0.375") or larger can be supplied with a uniform coating of thermo- set plastic coating. This coating will increase the "A" and "C" dimensions and decrease the "B" dimension a maximum of 0.5 mm (0.020"). The 9th digit of the thermo- set plastic coated toroid part number is a "2". Thermo- set plastic coating is RoHS compliant.
- Thermo- set plastic coated parts can withstand a minimum breakdown voltage of 1000 Vrms, uniformly applied across the "C" dimension of the toroid.

**For any toroidal core requirement not listed in the catalog, please contact our customer service department for availability and pricing.**

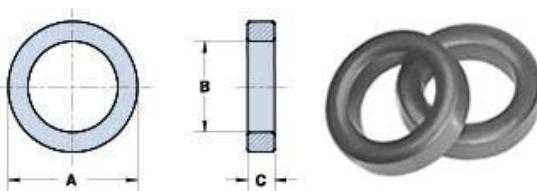
[Catalog Drawing](#)

[3D Model](#)

The C dimension may be modified to suit specific applications.

**Weight: 12 (g)**

| Dim | mm   | mm tol      | nominal inch | inch misc. |
|-----|------|-------------|--------------|------------|
| A   | 25.4 | $\pm 0.60$  | 1            |            |
| B   | 15.5 | $\pm 0.50$  | 0.61         |            |
| C   | 8.15 | $\pm 0.321$ | 0.321        |            |



#### **Chart Legend**

$\Sigma l / A$  : Core Constant,  $l_e$  : Effective Path Length,  $A_e$  : Effective Cross- Sectional Area,  $V_e$  : Effective Core Volume  
 $A_L$  : Inductance Factor

| Electrical Properties              |                |
|------------------------------------|----------------|
| $A_L$ (nH)                         | $645 \pm 20\%$ |
| $A_e$ (cm <sup>2</sup> )           | 0.40           |
| $\Sigma l / A$ (cm <sup>-1</sup> ) | 15.6           |
| $l_e$ (cm)                         | 6.2            |
| $V_e$ (cm <sup>3</sup> )           | 24.4           |

Toroids are tested for  $A_L$  values at 10 kHz.

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