



## VISUAL INSPECTION CRITERIA

### 1. Visual Characteristics (Surface Conditions and Appearance)

#### Rules for Measurement:

Unless specified, visual characteristics are inspected without magnification and are only measured when a possible non-conformance is suspected.

**Note:** These specifications are based on MMPA Standard No. FTC 410. As such, when classifying as a non-conformance, attention should be paid to how the visual characteristics adversely affect the functionality of the part. Further, ferrites are a ceramic and thus susceptible to irregularities throughout the manufacturing and handling process. Also, all irregularities must meet specified electrical requirements.

Characteristic	Description
Cracks	<ul style="list-style-type: none"><li>• All parts:<ul style="list-style-type: none"><li>➢ Cracks visibly open are generally not permitted.</li><li>➢ Hairline cracks across a dimension shall be less than 25% of that dimension.</li></ul></li><li>• Toroid or multi-aperture cores:<ul style="list-style-type: none"><li>➢ Radial cracks are not permitted.</li><li>➢ The overall length of circumferential cracks shall be less than 25% of core circumference.</li></ul></li><li>• Rod:<ul style="list-style-type: none"><li>➢ Hairline cracks perpendicular to the length are not permitted, except on the ends.</li><li>➢ End cracks shall be less than 25% of the circumference.</li><li>➢ The overall length of length cracks shall be less than 25% of the part length.</li></ul></li></ul>
Chips	<ul style="list-style-type: none"><li>• Chips shall not exceed 25% of the area of a surface (ie. wall thickness for a toroid) in length and width up to a maximum of 0.100 inch.</li><li>• Maximum number of chips per any core edge shall not exceed three or exceed six total on all surfaces when viewed without magnification.</li></ul>
Edges/Chamfers (not dimensioned)	<ul style="list-style-type: none"><li>• Surfaces to be wound will not be sharp or rough.</li></ul>
Deformation	<ul style="list-style-type: none"><li>• Taper and Out of Round: dimension must be within specified tolerance over entire area.</li><li>• Crazing or Pullout: shall not exceed 25% of the affected core surface.</li></ul>
Crystallization	<ul style="list-style-type: none"><li>• For surfaces indicating abnormal grain growth, further material evaluation required</li></ul>
Foreign Substance	<ul style="list-style-type: none"><li>• Not allowed (ie. refractory or grinding coolant residue)</li></ul>