

## Description

OhmegaPly MTR TOC RCM is an enhanced Nickel Phosphorus thin film metal alloy electro-deposited on a low-profile copper foil. It is primarily used in high frequency, high density applications and for applications where resistor dimensions are smaller than 150µm.

## OhmegaPly MTR TOC RCM Product Matrix

COPPER TYPE	SHEET RESISTIVITY (OHMS PER SQUARE)					
MTR TOC GRADE	10	25	40	50	100	250
3/8 oz (12 µm)	12M10TOC	12M25TOC	12M40TOC	12M50TOC	12M100TOC	12M250TOC
1/2 oz (18 µm)	18M10TOC	18M25TOC	18M40TOC	18M50TOC	18M100TOC	18M250TOC

Table 1: Ohmega material offerings on MTR TOC low-profile base copper

## Representative Base Copper Foil Data

Grade	Thickness (µm)	Area Weight (g/m <sup>2</sup> )	Rz (µm)	Tensile Strength (kg/mm <sup>2</sup> )	Elongation (%)	Peel Strength (kg/cm)
MTR TOC	12	126	5.1	42	6.0	0.8 <sup>(1)</sup>
	18	167	5.1	42	8.0	0.9 <sup>(1)</sup>

Table 2: Representative Data. (1) Base copper foil peel strength on FR4 substrate

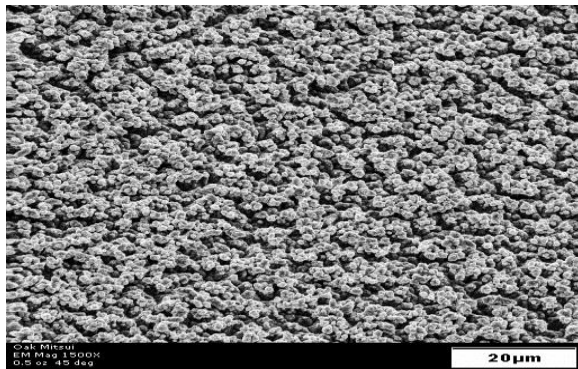


Figure 1: MTR TOC base copper foil matte side

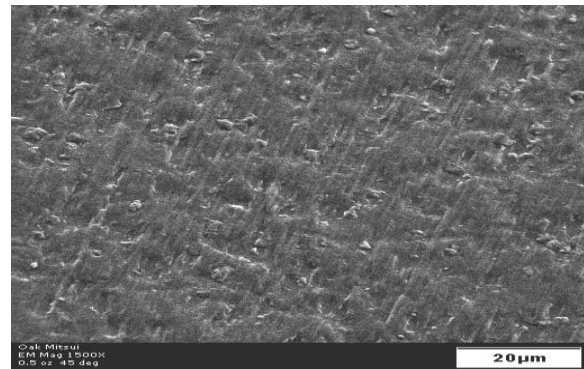


Figure 2: MTR TOC base copper foil drum side

## OhmegaPly<sup>®</sup> MTR TOC RCM Technical Snap-Shot

Sheet Resistivities	10	25	40	50	100	250	Unit	Remark and Condition
Material Tolerance	+/-5	+/-5	+/-5	+/-5	+/-5	+/-10	%	Sheet Resistivity
Power Load Test	172	99	91	84	69	59	mW	Based on 0.50mm x 0.25mm resistor size on FR4, no cladding.
RTC	20	50	75	75	100	100	PPM/ <sup>o</sup> C	MIL-STD-202-304, -55°C to 125°C
Solder Float	0.2	0.5	0.8	0.8	1.0	0.5	Δ R%	MIL-STD-202-210D, 288°C, 10 sec, 3x

Table 3: OhmegaPly MTR TOC RCM representative data, not a guarantee

\* OhmegaPly RCM<sup>®</sup> and or OhmegaPly<sup>®</sup> Laminate is exported from the United States in accordance with the Export Administration regulations. Diversion contrary to United States law prohibited.