

# Materials for all Overhead Current Collection Systems

Morgan Advanced Materials is a leading global supplier to the Railway and Tramway Industry, providing products, services and solutions for current collector systems.

Morgan Advanced Materials offer technical support from our highly qualified engineers, who have experience and an in-depth understanding of collector systems.

Whether tramways, mail line or high speed applications our team have the material and design expertise to recommend the best solutions for your applications.



## Material Grades for Overhead Current Collection

Grade	Description	Typical Running Current	Typical Static Current	Specific Resistance	Density	Transverse Bend Strength	Hardness
		(A/mm)	(A/mm)	( $\mu\Omega\text{m}$ )	(g/cm <sup>3</sup> )	(MN/m <sup>2</sup> )	Sceroscope
CY3TA	Plain Carbon <b>Lead Free</b>	6	1	38	1.7	30	85
CY280	Plain Carbon Graphite <b>Lead Free</b>	6	1	38	1.6	35	75
MY7A	Metallised CY3TA for higher strength and lower resistance <b>Lead Free</b>	10	2	10	2.4	75	90
MY7A2	Metallised CY280 for higher strength and lower resistance <b>Lead Free</b>	14	2.3	5	2.5	85	95
MY7D	Metallised CY3TA for higher strength and lower resistance	14	2.3	5	2.7	90	92
MY258	As MY7D but with improved resistivity	16	2.3	3	2.9	90	92
MY258A2	Modified version of MY7A2 with added impregnation strength & resistivity <b>Lead Free</b>	18	2.7	<2	2.7	75	85
MY258P	Metallised pressed grade with very low resistivity <b>Lead Free</b>	20	5	<1	3.2	85	80
MY259	Metallised CY280 for higher strength and lower resistance	16	2.5	3	2.8	90	90
MY131	Metallised dense base carbon to give low weight version of metallised grade <b>Lead Free</b>	10	2	8	2.2	80	105

The standard values for static current are based on the following criteria: 4kg contact force per strip (8.8 lbs) 107mm<sup>2</sup> single wire catenary, partly worn 150oC max. catenary temperature (302oF)

Higher operating values are achievable under certain conditions. Please contact our engineers for further information, as typical running and static currents are for guidance only.