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## COLORANA® Black Magnetic Iron Oxides Magnetic Properties

COLORANA® Black Magnetic Oxides are currently used in magnetic paints (MP), for “Magnetic Fashion” applications (MF), magnetic inks (MICR), magnetic fluids (MFD) and position sensors (PS).

COLORANA® offers as follows:

Type	Magnetic Properties: 10kOe, Riken Denshi BH-meter				
	Saturation $\sigma_s$ (emu/g)	Remanence $\sigma_r$ (emu/g)	Coercivity Hc (Oe)		
	Mean	Mean	Mean	Min	Max
M-150T/MAU-150T	90	6	45	30	50
M-20T	90	15	110	100	120
M-10T	89	20	230	210	250
CM-2D	86	28	300	280	320
CM-4D	83	31	390	370	400
CM-5D	82	31	390	370	400

Type	Grain Size (micon = $\mu\text{m}$ )		
	SEM Median	Top-size D <sub>99.99</sub>	Median D <sub>50</sub>
M-150T/MAU-150T		450	60
M-20T		63	7.0
M-10T		36	2.8
CM-2D	<b>0.55</b>	3.1	1.8
CM-4D	<b>0.35</b>	1.6	0.8
CM-5D	<b>0.25</b>	1.0	0.55

Type	Recommendations
COLORANA® Mag.	
M-150T/MAU-150T	MP/PS
M-20T	MP/PS
M-10T	MP/PS
CM-2D	MICR/PS
CM-4D	MF/MICR/MFD
CM-5D	MF/MICR/MFD