

# WPMAG<sup>®</sup> Injection molding particles for bonded magnet

**Magnetic Powder: Anisotropic Ferrite**

**Bonded Resin: PA6**

Grade	Test Method	Unit	15Series	18Series	19Series	20Series
<b>Magnetic Properties</b>						
Residual Flux Density(Br)	BH Curve Tracer	mT (Gs)	240-260	250-270	270-290	280-300
			(2400-2600)	(2500-2700)	(2700-2900)	(2800-3000)
Coercive Force(Hcb)		kA/m (Oe)	175-191	183-199	183-199	191-207
			(2200-2400)	(2300-2500)	(2300-2500)	(2400-2600)
Intrinsic Coercive Force(Hcj)		kA/m (Oe)	223-239	231-247	215-231	223-239
			(2800-3000)	(2900-3100)	(2700-2900)	(2800-3000)
Maximum Energy Product(BH)max	kJ/m <sup>3</sup> (MGOe)	11.9-13.5	13.1-14.7	14.7-16.3	15.9-18.3	
		(1.5-1.7)	(1.65-1.85)	(1.85-2.05)	(2.0-2.3)	
<b>Physical Properties</b>						
Tensile Strength	ASTM D-638	MPa	70-85	70-85	70-85	70-85
Flexural Strength	ASTM D-790	MPa	150-190	150-190	150-190	150-190
Flexural Modulus	ASTM D-790	MPa	18000-25000	18000-25000	18000-25000	18000-25000
Izod Impact Strength	ASTM D-256	kJ/m <sup>2</sup>	15-35	15-35	15-35	15-35
Density	ASTM D-792	g/cm <sup>3</sup>	3.3-3.6	3.5-3.7	3.6-3.75	3.65-3.8
Water Absorption	ASTM D-570	%	0.13-0.15	0.13-0.15	0.13-0.15	0.13-0.15
Melt Flow Rate 270°C/10Kg	ASTM D-1238	g/10min	100-300	80-200	80-200	60-180
Flammability	UL94	Class	V-0	V-0	V-0	V-0
<b>Injection Molding Conditions</b>			<b>Recommended Injection Molding Parameters</b>			
Pre-drying Temperature	°C		80-90	80-90	80-90	80-90
Pre-drying Time	hr		2-4	2-4	2-4	2-4
Injection Temperature	°C		250-270	260-280	270-290	275-295
Mold Temperature	°C		70-90	70-90	80-100	80-100
Injection Pressure	MPa		80-100	80-100	80-100	80-100
Injection Speed	V%		60-80	60-80	60-80	60-80