

Magnetic properties vary with flux density. MagWeb helps you discover the Grade that is optimal for your machine.
 (Traditional equivalent tables -such as one below- do not reveal the optimal grade)

TABLE. TRADITIONAL EQUIVALENT* GRADES

(a) Electrical Steel, Grain Oriented									
w/kg*	Cogent	Thyssen	Nippon	JFE	POSCO	Bao Steel	WISCO	NLMK	AK
0.80	M080-23P		23ZDKH80	23JGSD80	23PHD080	B23R080			
0.85	M085-23P	H085-23	23ZDKH85	23JGSD85	23PHD085	B23R085			
0.90	M090-23P	H090-23	23ZH90	23JGH090	23PH090	B23P090			
0.90		H-ODR	23ZDKH90	23JGSD90		B23R090			
0.90	M090-27P	H090-27	27ZDKH90	27JGSD090	27PHD090	B27R090			
0.95	M095-23P	H095-23	23ZH95	23JGH095	23PH095	B23P095			
0.95	M095-27P		27ZH95		27PH095	B27P095			
0.95			27ZDKH95	27JGSD095	27PHD095	B27R095			
1.00	M100-23P	H100-23	23ZH100	23JGH100	23PH100	B23P100			
1.00	M100-30P		30ZH100		30PH100	B30P100	300G100	3408	
1.03	M103-27P	H103-27	27ZH100	27JGH100	27PH100	B27P100	270G100		
1.05	M105-30P	H105-30	30ZH105	30JGH105	30PH105	B30P105	300G105		
1.10	M110-23S	C110-23	23Z110			B23G110		3409	
1.10	M110-27S		27ZH110	27JGH110		B27P110	270G110	3409	H-1
1.11	M111-30P	H111-30	30ZH110	30JGH110		B30P110	300G110		
1.15	M115-27S								
1.15	M115-30S								
1.15			35ZH115	35JGH115	35PH115	B35P115			
1.20	M120-23S	C120-23				B23G120			
1.20	M120-27S	C120-27	27Z120	27JG120	27PG120	B27G120	270120	3407	
1.20	M120-30S		30Z120	30JG120	30PG120	B30G120	300120	3408	
1.20			30ZH120			B30P120	300G120	3409	
1.25			35ZH125	35JGH125	35PH125	B35P125		3409	
1.30		C130-27	27Z130	27JG130	27PG130	B27G130	270130	3406	
1.30	M130-30S	C130-30	30Z130	30JG130	30PG130	B30G130	300130	3407	
1.35			35ZH135	35JGH135	35PH135	B35P135		3407	
1.35			35Z135	35JG135		B35G135	350135	3407	
1.40		C140-27					270140	3405	
1.40		C140-30	30Z140	30JG140	30PG140	B30G140	300140	3405	
1.40	M140-35S								
1.45			35Z145	35JG145	35PG145	B35G145	350145	3406	
1.50	M150-35S								M-6
1.55			35Z155	35JG155	35PG155	B35G155	350155		

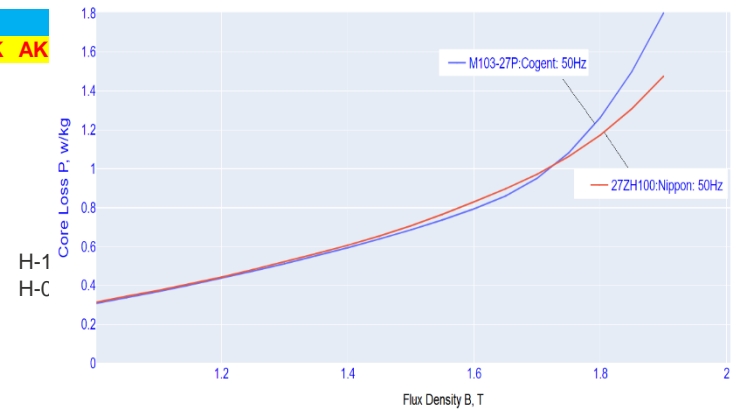


Fig. 1 Nippon's 27ZH100 is "equivalent" to Cogent's M103-27P only below 1.5T. Beyond 1.72T, Nippon's 27ZH100 is better.

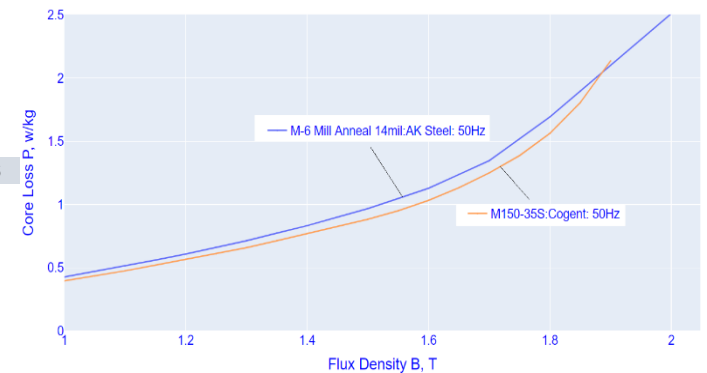


Fig.2 Cogent's M150-35S is better than an 'equivalent' AK Steel's M-6 only below 1.9T. Above 1.9T, M-6 is better.

(b) Electrical Steel, Non-Grain Oriented

w/kg*	Cogent	Thyssen	Nippon	JFE	POSCO	China Steel	Bao Steel	WISCO NLMK	AK Steel
2.10		M210-35A	35H210	35JN210	35PN210	35CS210	B35A210		
2.30		M230-50A	50H230	50JN230	50PN230		B50A230		
2.35	M235-35A	M235-35A	35H230	35JN230	35PN230		B35A230		
2.50	M250-35A	M250-35A	35H250	35JN250	35PN250	35CS250	B35A250	351MN: 2413	M-15
2.50				35JNE250		35CS250H	B35AH250		
2.50	M250-35HS								
2.50	M250-50A	M250-50A	50H250	50JN250	50PN250	50CS250	B50A250	501MN250	
2.70	M270-35A	M270-35A	35H270	35JN270	35PN270		B35A270	351MN: 2412	M-19
2.70	M270-50A	M270-50A	50H270	50JN270	50PN270		B50A270	501MN: 2414	
2.90	M290-50A	M290-50A	50H290	50JN290	50PN290	50CS290	B50A290	501MN: 2413	M-15
3.00	M300-35A	M300-35A	35H300	35JN300	35PN300	35CS300	B35A300	35VWV 2411	M-22
3.00				35JNE300			B35AH300		
3.10	M310-50A	M310-50A	50H310	50JN310	50PN310		B50A310	50VWV 2412	M-19
3.10	M310-65A								
3.30	M330-35A								M-36
3.30	M330-35HP								
3.30	M330-35HS								
3.30	M330-35HT								
3.30	M330-50A								M-27
3.30	M330-65A								
3.40	M340-50E								
3.50	M350-50A	M350-50A	50H350	50JN350	50PN350	50CS350	B50A350	50VWV 2411	M-36
3.50	M350-65A								
3.60			35H360	35JN360	35PN360		B35A360	35VWV360	
3.90	M390-50E								
3.90	M390-65E								
4.00								35VWV400	
4.00	M400-50A	M400-65A			50PN400		B50A400	50VWV 2216	M-43
4.00	M400-65A								M-27
4.20	M420-50D								
4.40			35H440	35JN440	35PN455	35CS440	B35A440	35VWV440	
4.50	M450-50E								
4.50	M450-65E								
4.70	M470-50A	M470-50A	50H470	50JN470	50PN445		B50A470	50VWV 2214	M-45
4.70	M470-65A	M470-65A			65PN470	65CS470	B65A470		M-43
5.20	M520-65E								
5.30	M530-50A							2211	M-47
5.30	M530-50HP								
5.30	M530-65A								M-45
5.50					35PN560		B35A550		
5.60	M560-50E								
5.70	M570-65D								
6.00	M600-100A								
6.00	M600-50A	M600-50A	50H600	50JN600	50PN595	50CS600	B50A600	50VWV 2212	
6.00	M600-65A	M600-65A			65PN595	65CS600	B65A600		M-45
6.00	M600-65HP								
6.30	M630-65E								
6.60	M660-50D								
7.00	M700-100A								
7.00	M700-50A	M700-50A	50H700	50JN700	50PN760		B50A700	50VWV 2111	M-47
7.00	M700-65A	M700-65A			65PN760		B65A700		
8.00	M800-100A								
8.00	M800-50A	M800-50A	50H800	50JN800	50PN890	50CS800	B50A800	50VWV 2011	
8.00	M800-65A	M800-65A		65JN800	65PN890	65CS800	B65A800		M-47
8.00	M800-65D								
8.90	M890-50D								
10.00		M940-50A	50H1000	50JN1000	50PN1015	50CS1000	B50A1000	50VWV1000	
10.00	M1000-100A								
10.00	M1000-65D	M1000-65A		65JN1000	65PN1015		B65A1000		
13.00		M1100-	50H1300	50JN1300	50PN1270	50CS1300	B50A1300	50VWV1300	
13.00		M1300-65A		65JN1300	65PN1270		B65A1300		

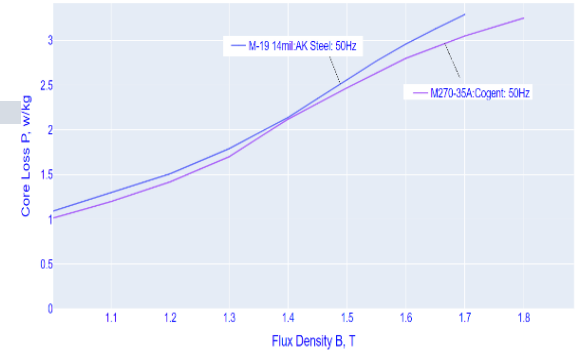


Fig. 3 Cogent's M270-35A is better below 1.3T. But ' equivalent' M-19 is better above 1.5T

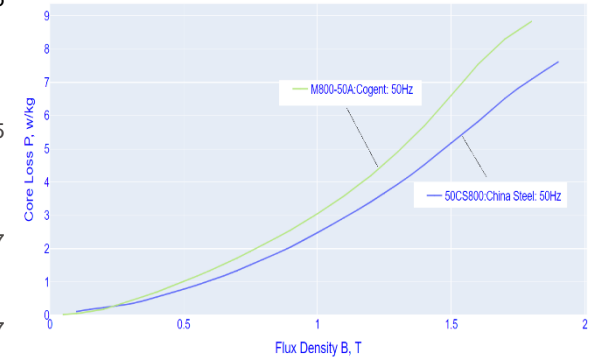


Fig.4 China Steel's 50CS800 is consistently better than ' equivalent' Cogent's M800-50A

(c) Electrical Steel, Thin Gage					
w/kg**	Cogent	Thyssen	Arcelor	Arnold	Voestalpine
12.80				Arnon 7	
13.00	NO10				
13.00	NO-20	020-130Y320	save 20-13	Arnon 5	
13.00			420 save 20-13		
13.50	NO12				
14.00	NO15				
14.00			save25-14		
14.00			420 save 25-14		
14.30	NO18				
15.00	NO20				
15.00		020-150Y320	save 20-15		
15.00	NO27	027-150Y370	save27-15		
15.00			420 save 27-15		
15.00			save30-15		
16.00			save25-16		
16.00	NO30	030-160Y420	420 save 30-16		
17.00		027-180Y370	save27-17		
17.00			save30-17		
18.00		035-180Y400	save35-18		
19.00		032-190Y330			
19.00		035-190Y300			
19.00		035-190Y390	save35-20		
22.00		035-220Y300			

* maximum core loss at 1.5T,50Hz for grades deemed 'equivalent'
 ** maximum core loss at 1T,400Hz for grades deemed 'equivalent'

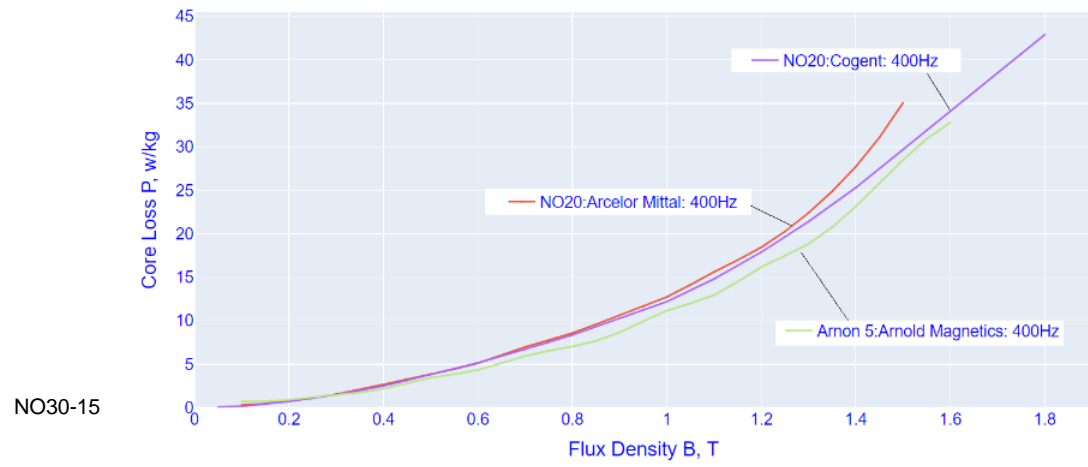


Fig. 5 Arnold's Arnon-5 is better than other 0.2mm grades

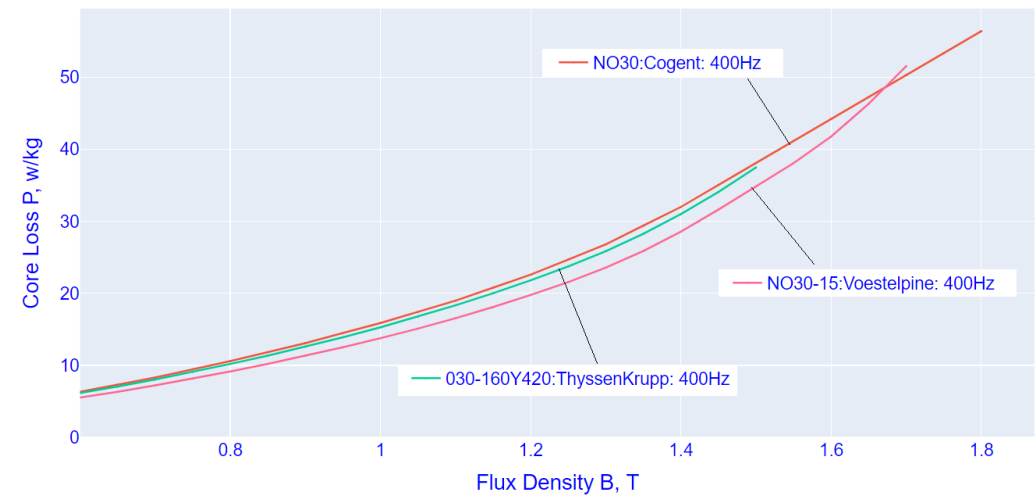


Fig. 6 Voestalpine's NO30-15 is significantly better than Cogent's NO30 or Thyssenkrupp's 030-160Y420