

## ArcelorMittal Speed 35-510 Electrical Steel

Category : Metal , Ferrous Metal , Alloy Steel

### Material Notes:

**Properties:** The iCARE™ Speed product family comes with guaranteed losses at 400Hz and indicative maximum values at 700Hz. These values are representative of the steel's behaviour at high frequencies..**Advantages:** The Speed grades provide an excellent compromise between mechanical properties and losses**Applications:** Speed has been developed for very high speed rotors. This enables manufacturers to make more compact machines for a given mechanical output**Recommendations for use:** Speed grades can be used immediately after lamination punching. The effect of punching can be eliminated if a stress relief annealing is applied. This optimises the performance of the Speed grades in applications with fine teeth. It can also provide substantial performance improvements in the lower frequency range. To achieve these effects, a C5 type coating is advised. Speed stacks can be produced using any existing assembly technique such as interlocking or welding.**Information provided by ArcelorMittal**

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_ArcelorMittal-Speed-35-510-Electrical-Steel.php](http://www.lookpolymers.com/polymer_ArcelorMittal-Speed-35-510-Electrical-Steel.php)

Physical Properties	Metric	English	Comments
Density	7.60 g/cc	0.275 lb/in <sup>3</sup>	

Mechanical Properties	Metric	English	Comments
Hardness, Vickers	210 - 240	210 - 240	L direction
	210 - 240	210 - 240	T direction
Tensile Strength, Ultimate	605 - 655 MPa	87700 - 95000 psi	L direction
	625 - 675 MPa	90600 - 97900 psi	T direction
Tensile Strength, Yield	510 - 560 MPa	74000 - 81200 psi	L direction
	540 - 590 MPa	78300 - 85600 psi	T direction
Elongation at Break	20 - 30 %	20 - 30 %	L direction
	20 - 30 %	20 - 30 %	T direction

Magnetic Properties	Metric	English	Comments
Core Loss	<= 28.0 W/kg	<= 12.7 W/lb	at 1T, Guaranteed
	@Frequency 400 Hz	@Frequency 400 Hz	
	<= 65.0 W/kg	<= 29.5 W/lb	at 1T, Indicative
	@Frequency 700 Hz	@Frequency 700 Hz	

Descriptive Properties	Value	Comments
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Descriptive Properties	Value	Comments
Polarization	>1.51 T	at 2,500 A/m
	>1.62 T	at 5,000 A/m
	>1.72 T	at 10,000 A/m

## Contact Songhan Plastic Technology Co.,Ltd.

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