

FOR A SMARTER WORLD.



REFINED STEEL



Electrotherm (India) Ltd. is a well-diversified conglomerate having a strong presence in the field of engineering and projects serving steel, foundry & heat treatment industries since 1983. Over the years, it has forayed into manufacturing of Induction Melting Furnaces, Continuous Casting Machines, Steel, Transformers etc. It launched TMT bars in 2006 and in a short span of 10 years, ET TMT bars have become the most preferred and no. 1 brand of TMT bars in Gujarat. Today, Electrotherm (India) Ltd. is Western India's first fully integrated manufacturing facility of epoxy coated TMT bars with unique offerings like ET TMT Epoxy Protect and ET TMT Cut & Bend which are ready-to-use TMT bars.

ET TMT 500 D LPS bars are made using 100% iron ore and a patented ERF-ELdFOS™ metallurgical process which ensures the elimination of all impurities from iron. Our 500 D LPS bars have superior mechanical properties in strength, weldability, ductility and bendability that exceeds quality standards due to highly stringent quality control process using NABL accredited labs and equipment.

AT THE HEART OF OUR STEEL IS OUR EYE FOR QUALITY.

Sulphur and Phosphorus (S & P) are damaging impurities in steel. High levels of phosphorus can lead to 'cold shortness' in steel which makes it brittle under extreme cold conditions while high level of sulphur can lead to 'hot shortness' in steel, a condition in which the melting point of steel gets lowered thereby reducing its strength under high temperature. However, lower levels of S & P can be achieved only through advanced steel making technology.

At Electrotherm (India) Limited, advanced steel manufacturing facilities as well as the stringent quality

controls at every step ensure production that complies with BIS specifications. After refining the steel in LRF, it is sent to a rolling mill and thermomechanically treated in standard quenching box. Highly atomised quenching, self-tempering and atmospheric cooling ensures that TMT bars have superior mechanical properties in strength, weldability, ductility and bendability meeting quality standards.



CONSTRUCTION THAT STANDS THE TEST OF TIME.

- Lower phosphorus improves ductility
- Lower sulphur improves transverse ductility and weldability
- Lower carbon level results in excellent ductility and weldability
- This grade is ideal for construction in areas prone to earthquake due to better shock resistant properties
- Stringent quality control through in-house NABL approved physical and chemical laboratories
- Higher resistance to failure
- Avoids localised shear failure

WHEN BUILDING IT RIGHT IS THE ONLY WAY TO BUILD.

ET TMT 500 D LPS is ideal for:

- Critical structures in seismic zones III, IV and V
- High-rise buildings
- Bridges
- Flyovers
- Dams
- Foundation of wind turbines
- Industrial structures
- Concrete roads
- Underground structures
- Thermal and hydroelectric power stations
- General purpose concrete reinforcement structures

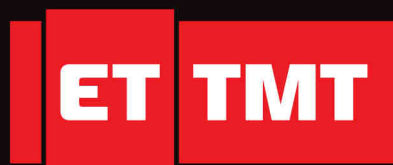
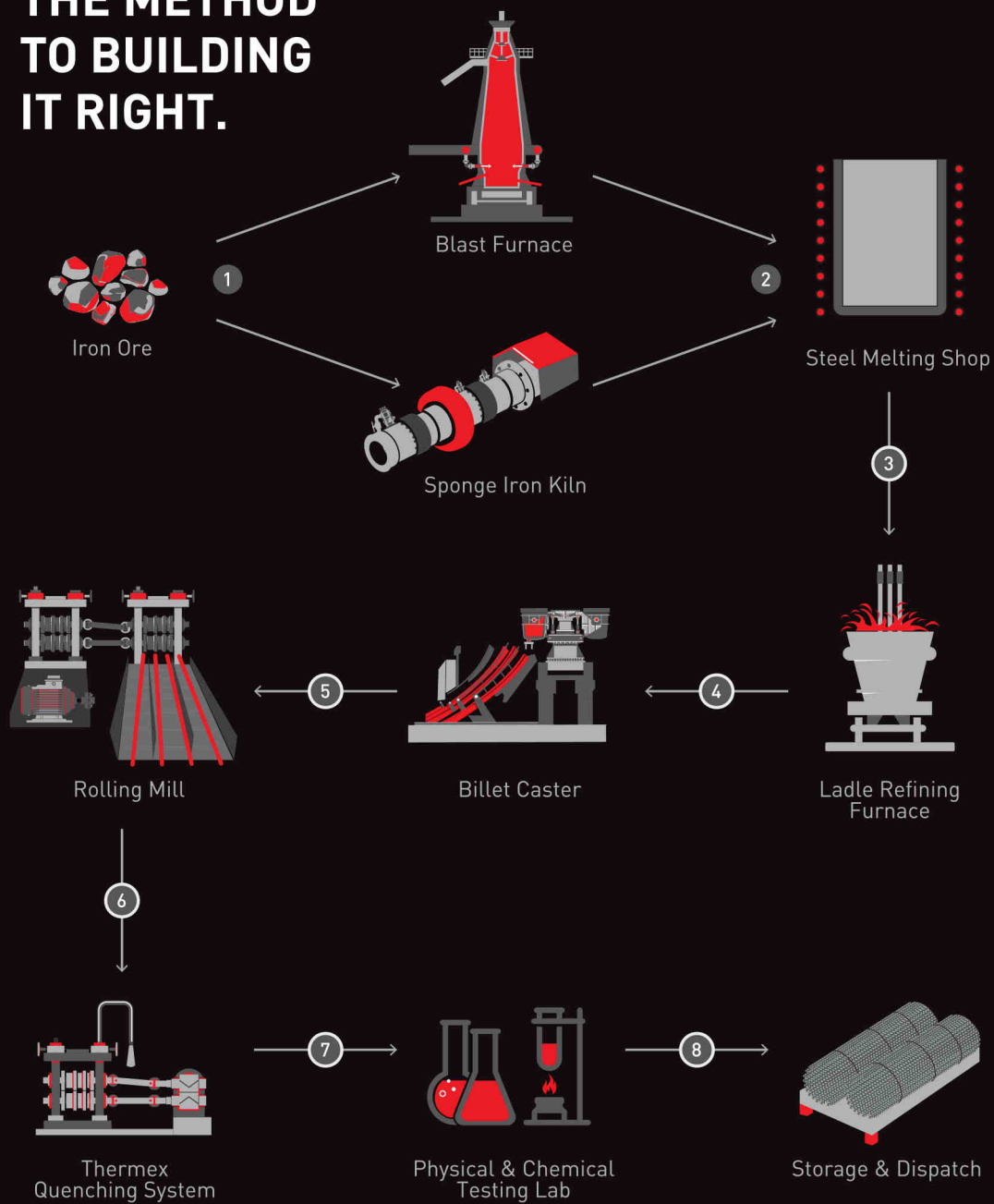
MECHANICAL PROPERTIES		
	IS 1786:2008	ET TMT 500 D LPS
Ultimate Tensile Strength	565 N/mm ²	610
Yield Stress	500 N/mm ²	530
(UTS / YS) Ratio	1.10	1.15
Elongation	16.0%	*19.0%
Total Elongation	5.0%	8.0%

*Up to 20 mm 19% (min), above 20 mm 17% (min), in physical all single values are minimum and as obtained in 90% of heat

CHEMICAL PROPERTIES		
	IS 1786:2008	ET TMT 500 D LPS
Carbon	0.25	0.23
Sulphur	0.04	0.0375
Phosphorus	0.04	0.0375
Sulphur & Phosphorus	0.075	0.075
CE	0.42	0.38

In chemicals, all single values are maximum

THE METHOD TO BUILDING IT RIGHT.



BUILD IT RIGHT

Electrotherm (India) Limited

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