ARS 550 SM+



STRENGTH. FLEXIBILITY. ENGINEERED TOGETHER.



S STANDS FOR STRENGTH

High TS/YS ratio above 1.15

High earthquake resistance

M+ STANDS FOR HIGH MANGANESE

Manganese 0.75% minimum

Higher flexibility and bendability than 550D

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THE BENEFITS BEHIND EVERY BUILD.



KEY BENEFITS

Earthquake Resistant

Enhanced Bendability

Enhanced Structural Strength

Superior Concrete Bonding

ADVANTAGES OVER ORDINARY TMT BARS

Advantage	Significance	Ordinary Brands	ARS 550 SM+
YS	Indicator of the yield strength of the material: the point at which the material deforms beyond repair.	415–500 MPa	**550 MPa** (minimum)
UTS/YS	Indicator of the material's ductility & toughness: its ability to absorb energy (elongate) before it fractures. The higher the value, the better the rebar withstands earthquake/seismic load.	1.06	**1.15+** (exceeds BIS standards)
Best-in-class rib design	The better the rib design, the more firmly the bar grips the concrete, giving a stronger bond between steel and concrete.	Standard ribs	**Superior bonding** (precisely formed ribs)
(S+P) %	Lower sulphur & phosphorus in TMT gives superior ductility (%E) and reduced brittleness. Low (S+P) % is critical for the safety of the structure during an earthquake or any other natural calamity.	>0.12 (Not qualified)	**0.090** (maximum)

ADDITIONAL BENEFITS

Quicker construction
Easier bending and shaping help speed up fabrication and placement on site.

Cost savings
Efficient fabrication and handling help optimise overall construction costs.

Best in class rib design
Precisely formed ribs enhance the grip between steel and concrete.

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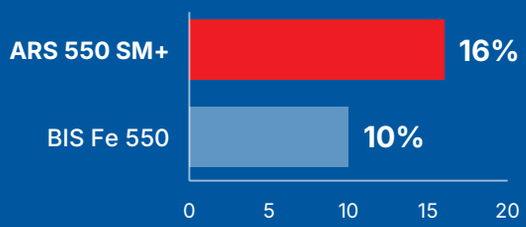
THE NUMBERS BEHIND THE STRENGTH.

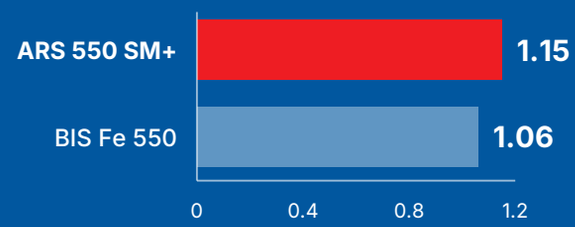


PERFORMANCE COMPARISON

Elongation, % minimum



TS/YS ratio, minimum



TECHNICAL SPECIFICATIONS

Parameter	Fe 550 BIS-STD	Fe 550 SM+ ARS-STD
Chemical Analysis		
% C (Max)	0.30	**0.20**
% Mn (Min)	-	**0.75**
% P (Max)	0.055	**0.055**
%S (Max)	0.055	**0.035**
%S+P (Max)	0.100	**0.090**
%N (Max)	0.012	**0.012**
Mechanical properties		
Ys (min).MPa	550	**550**
UTS (min).MPa	585	**635**
% EL (min)	10.0	**16.0**
UTS/YS (min)	1.06	**1.15+**

- indicates no value provided in the supplied comparison.

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