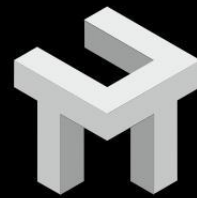


A DIVISION OF  
ARYA GROUP

EARTHQUAKE  
RESISTANT

RAISING THE BAR



**UTKARSH**  
TMT BARS

**500D**

YOUR SAFETYOUR COMMITMENT

[www.aryagroup.co.in](http://www.aryagroup.co.in)



### UTKARSH TRUST

**"We require products that improve the construction standards of the society and make our homes stronger and more protective".**

With this thought of raising the construction standards, UTKARSH 500D, comprising higher strength and better load bearing capacity making it capable of withstanding various damaging forces acting against a building.

**APPLICATION** Apart from usage in general construction these Re-Bars find critical importance in the following sites.

FLYOVERS

DAMS

HIGH-RISE BUILDINGS

BRIDGES

CRITICAL STRUCTURES

## WHY UTKARSH 500D ?

UTKARSH 500D, the new generation high strength ribbed reinforcement bar, is a product form Utkarsh Bars Pvt. Ltd. The 'D' in Utkarsh 500D stands for ductile (ability to deform & absorb energy). It denotes that these bars apart from characteristics of Utkarsh 500 possess extra ordinary feature of high ductility which makes it High resistant against earthquakes and various other external loads. It is Stronger from traditional bars in combination of its various properties.

### IMPORTANT CHARACTERISTICS

#### CORROSION RESISTANT CHARACTERISTICS

UTKARSH 500D is produced by latest Quenching & Self Tempering treatment technology. With Low Carbon content & no torsional residual stresses in the bar, which result in superior corrosion resistance characteristics compared to other bars.

In addition, its thick tempered martensite rim which not only improves the strength of the bar but also makes it highly corrosion resistant.

## SEISMIC RESISTANCE PROPERTIES

Utkarsh 500D bars are more resistant to earthquakes and shocks due to combination of higher strength and ductility. As in chemistry, any rebar contains two harmful impurities, Sulphur & Phosphorus at higher levels which reduce the strength and ductility of the rebar.

However lower levels of S&P values are better & same can be achieved only through advance steel making technology. At UTKARSH due to advanced steel making facilities and stringent quality controls at every step results in to the purity of steel that provides higher strength & ductility makes it capable to withstand sudden load which is encountered during earthquakes, cyclone and tsunamis thus providing higher safety.

## HIGHER CORROSION RESISTANCE

Utkarsh 500 has a uniform and thick tempered martensite rim (thicker than Fe-415) which not only improves the strength of the bar but also makes it highly corrosion resistant.

## HIGH WELD ABILITY

As UTKARSH 500D has low carbon equivalent therefore it has weldability superior to ordinary Fe 500 Rebars.

## HIGH DUCTILITY

Clean Steel with low tramp elements contents in Raw material is being used for manufacturing Utkarsh 500D bars which provide highly ductile properties and are more capable to withstand dynamic loads as its elongation is much higher than other rebars.

## TESTED AND CERTIFIED

Every lot supplied by the works being checked through Spectrometer & Electronic Extensometer which provide the precision in quality of rebars & is accompanied by a test certificate stating the chemical composition and characteristics of the product.

## THE MARK OF A LEADER

UTKARSH 500D is a registered trademark of UTKARSH Bars Pvt. Ltd. To buy a genuine UTKARSH 500D bar, look for the UTKARSH 500D embossed on the bar in its own distinctive style.

UTKARSH 500D BARS are produced in Fe 500D, IS: 1786 grade. However, Carbon, Sulphur & Phosphorus levels are restricted to much lower than the specification, which results in excellent ductility, high bendability and superior weldability.

## CHEMICAL PROPERTIES

Grade Fe-500D	Carbon (C)	Sulphur (S)	Phosphorus (P)	S & P	Carbon Equivalent
IS 1786 : 2008 (Max.)	0.250	0.040	0.040	0.075	0.42
Utkarsh 500	0.250	0.035	0.035	0.70	0.40

## MECHANICAL PROPERTIES

Grade Fe-500D	Yield Stress (N/mm <sup>2</sup> )	Tensile Strength (N/mm <sup>2</sup> )	Elongation %	Uniform Elongation
IS 1786 : 2008 (Max.)	500	565	16	5
Utkarsh 500	540	600	18	7

Utkarsh 500D bars are available in sizes ranging from 8mm to 32mm



### CORPORATE OFFICE

B/903, The Imperial Heights, 150 Feet Ring Road, Opp. Big Bazar, Rajkot - 360005  
+91 281 2582066-70 | [www.ary-groupco.in](http://www.ary-groupco.in) | [marketing@aryagroup.co.in](mailto:marketing@aryagroup.co.in)

**PREMIUM  
QUALITY  
BARS**