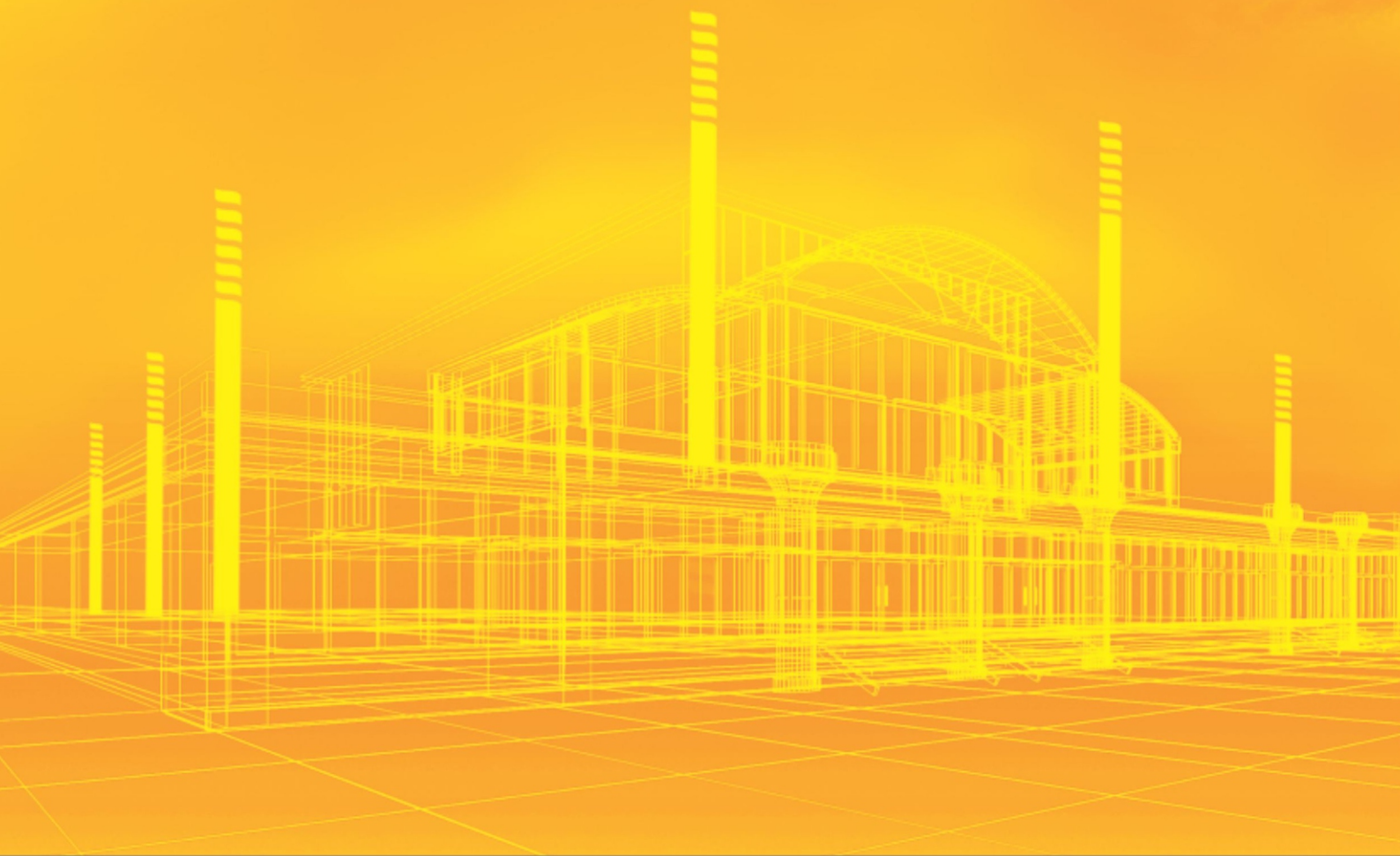


Raising Your Dreams  
**TO REALITY**



**HIRA**

**KORE**

TMT REBARS



## ABOUT HIRA GROUP

HIRA Group is a conglomeration of 15 companies across India, with more than 6000 employees in the sectors of Steel, Ferro Alloys, Energy, Mining, Cement, Technology and Real Estate.

As one of the largest industrial conglomerates in India, the Group carries a passion for sustainable and inclusive growth, which it believes is the essence of life.

The Group is playing an integral role in developing the country by returning wealth to the community through education, empowerment, environment enrichment, infrastructure development, disseminating & maintaining hygiene, safety, developing sports & recreation and corporate governance.

Today, HIRA Group takes pride in developing some of the most iconic and celebrated projects of India. In 2013, HIRA Group successfully commissioned India's first 50 MW Solar Thermal Power Plant under the Jawaharlal Nehru National Solar Mission. With the growing demand for quality real estate, the Group is on its journey to build Chhattisgarh's largest integrated residential township providing all the benefits of high quality living.

The Group created Ecopel - the world's first Iron ore pellet brand that provides a high quality and ecologically viable alternative to iron ore for steel making. In addition, Ecopel provides a large set of premium services like SMS and Online tracking of the product with real-time logistics updates. The purpose of the brand is to promote industrial health, safety and environment protection.

HIRA Group established its first manufacturing plant for producing Ferro Alloys through smaller electric arc furnace route and has grown to become one of the largest Ferro Alloys producers in India today with an integrated business model. Ferro Alloys are utilized in the fabrication of high quality steel where the Group holds an enviable position in the industry.

Ferro Alloys industry fortunes are proximately linked to steel Industry, foundry Industry, and electrode industry magnification where HIRA Group has adequate high quality raw material, highly-adroit technical manpower and the latest equipment and technology for manufacturing of Ferro Alloys with a total capacity of 160000 TPA.

## ABOUT KORE

**KORE** is a brand of high performance and thermo mechanically treated (TMT) Rebars from HIRA Group. The product line mainly comprises of 500 and higher grades known for its excellent bend-ability, higher strength and longer life. **KORE** Rebars are BIS certified and are manufactured using advanced state-of-the-art facilities at HIRA Group plants. **KORE** is one of the leading brands in the country offering the highest quality TMT Rebars to the market at very competitive prices. The quality of **KORE** Rebars is at par with International standards & superior to most of the Indian brands which is possible due to the completely integrated nature of the steel plants which HIRA Group has established over the last 4 decades.

## PROPERTIES & FEATURES OF KORE

### CHEMICAL

1. Very close chemistry
2. Lower tramp elements like Phosphorous, Sulphur & Lead
3. Lower oxide levels
4. Better grain size in the range of 7/8 nos
5. De-phosphorisation & De-sulphurisation are done through induction furnace & LRF route

### PHYSICAL

1. High corrosion strength and temperature resistance of more than 600° C
2. Higher elongation
3. Earth quake resistance due to higher strength
4. Lower consumption by 10-12%
5. Better bendability & weldability
6. Automatic fixed size bundling, reduces wastage
7. Ribs are computerized as per BIS
8. ISO 9001, ISO 140001, OHSAS 180001 and BIS certified
9. Ready to use



# KORE QUALITY COMPARISON MATRIX

Technical Parameters	ISI Grade	Other Players	KORE
<b>Mechanical Properties</b>	<b>Fe-500D</b>	<b>Fe-500D</b>	<b>KORE 500D</b>
Proof Stress (Min.)	500N/mm <sup>2</sup>	530N/mm <sup>2</sup>	575N/mm <sup>2</sup>
Tensile Strength (Min.)	565N/mm <sup>2</sup>	600N/mm <sup>2</sup>	650N/mm <sup>2</sup>
UTS/ YS Ratio (Min.)	1.10	1.10	1.12
Elongation	16%	18%	18%
Bend Test (Min.)	Up to 20mm – 3D Above 20mm – 4D	Up to 20mm – 3D Above 20mm – 4D	Up to 20mm – 3D Above 20mm – 4D
<b>Chemical Composition(%)</b>			
Carbon	0.25% Max	0.25% Max	0.24% Max
Sulphur	0.040 Max	0.040 Max	0.035 Max
Phosphorus	0.040 Max	0.040 Max	0.035 Max
S + P	0.075 Max	0.075 Max	0.070 Max
Mn.	0.500 Min	0.500 Min	0.550 Min
Si.	0.400 Max	0.400 Max	0.400 Max
<b>Mechanical Properties</b>	<b>Fe-550</b>	<b>Fe-550</b>	<b>KORE 550</b>
Proof Stress (Min.)	550N/mm <sup>2</sup>	575N/mm <sup>2</sup>	575N/mm <sup>2</sup>
Tensile Strength (Min.)	585N/mm <sup>2</sup>	600N/mm <sup>2</sup>	600N/mm <sup>2</sup>
Elongation (Min.)	10%	15%	16%
Bend Test (Min.)	Up to 20mm – 5D Above 20mm – 6D	Up to 20mm – 5D Above 20mm – 6D	Up to 20mm – 5D Above 20mm – 6D
<b>Chemical Composition(%)</b>			
Carbon	0.300 Max	0.230 Max	0.230 Max
Sulphur	0.055 Max	0.045 Max	0.045 Max
Phosphorus	0.050 Max	0.045 Max	0.045 Max
S + P	0.100 Max	0.090 Max	0.090 Max
Mn.	–	0.550 Min	0.550 Min
Si.	–	0.300 Max	0.300 Max
<b>Mechanical Properties</b>	<b>Fe-500</b>	<b>Fe-500</b>	<b>KORE 500</b>
Proof Stress (Min.)	500N/mm <sup>2</sup>	530N/mm <sup>2</sup>	530N/mm <sup>2</sup>
Tensile Strength (Min.)	545N/mm <sup>2</sup>	600N/mm <sup>2</sup>	600N/mm <sup>2</sup>
Elongation (Min.)	12%	16%	16%
Bend Test (Min.)	Up to 20mm – 4D Above 20mm – 5D	Up to 20mm – 4D Above 20mm – 5D	Up to 20mm – 4D Above 20mm – 5D
<b>Chemical Composition(%)</b>			
Carbon	0.30% Max	0.23% Max	0.23% Max
Sulphur	0.055 Max	0.050 Max	0.050 Max
Phosphorus	0.055 Max	0.050 Max	0.050 Max
S + P	0.105 Max	0.095 Max	0.095 Max
Mn.	0.500 Min	0.500 Min	0.500 Min
Si.	0.400 Max	0.400 Max	0.400 Max

## PRODUCT & SIZE RANGE (Bundle length 12m)

### PRODUCT RANGE - 500D, 500, 550, 415

Straight (in mm)

Coiled (in mm)

5.5	6	7	8	10	12	16	20	25	28	30	32	36	40
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5.5	6	7	8	10	12
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# WHY KORE

Integrated source of raw materials for making **KORE** Rebars under the eyes of expert scientists and technocrats with decades of experience and exposure to both Indian & International Industrial Standards

Higher safety of construction due to high elongation values

OTIFIC (On Time In Full Invoice Correctly) Ready

Educating industry on the best utilization of **KORE** in order to reduce wastage, enhance profitability and conserve national resources

Customized Cut-To-Length & Cut-To-Bend

24 X 7 ordering and technical support system



## MINES

**HIRA** possesses 106 hectares of iron ore rich mines in Chhattisgarh. With an active exploration and development program, the planned production is 0.7million ton per annum with an estimated reservoir of 5.45 million tons for future use. Currently, the mining operations are supported by a team of around 1400 direct and indirect employees. **HIRA Group** does not compromise on workers' safety and environmental protection while undertaking its mining activities.



## PELLETS



**HIRA Group** is one of the few companies in India to have its own iron ore pelletization plant providing significant process improvements and efficient resource utilization. In this process, we combine raw material, forming pellets and a thermal treatment baking the soft raw pellet to hard spheres. The total installed capacity of the iron ore pellet station is 2.4 million TPA.

## SPONGE IRON

**HIRA Group** is the third largest producer of coal based Sponge Iron in India with installed capacity of 4,90,000 TPA. It produces high-grade sponge iron that is uniform & consistent in quality. The products have low phosphorous, that allows them to manufacture ISI products.



## POWER



**HIRA** has started its first Power Plant operating on waste heat rejected from Sponge Iron Kiln and Furnaces. It was commissioned in 2002 with 30 ton/hr capacity. The Power plant became a pioneer in the world to be registered with CDM executive board to make it Executive Board for entitlement of carbon credits under the Kyoto protocol. Now we have reached to – 126 MW Thermal, 9 MW Wind Power, 28 MW Biomass Power and 50MW Solar Thermal Power Generation.

## STEEL MELTING SHOP

The billets manufactured at **HIRA Group** are from pellets based Sponge Iron, which conform to IS 2830 & 2831 standards ensuring one of the finest billets in the country. Ladle refining furnace is available and we can cast 110x110, 120x120, 140x140, 160x160 billet or bloom in out caster conforming to the BIS 2830 & 2831 standards with an installed capacity of 400000 TPA. The billets are meant for re-rolling of strips, wires, bars, hexagons and profiles, which are all available in a variety of sizes.



TOLL FREE HELPLINE



1800-102-2030

[www.korebars.com](http://www.korebars.com)



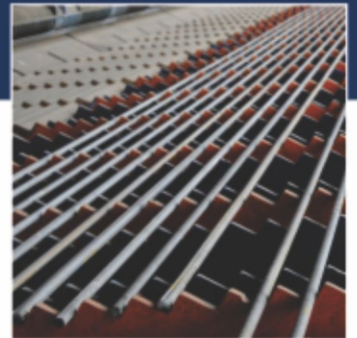
Mining



Casting



Rolling



Finished Bar

**HIRA**  
HINDUSTAN IRON & STEEL LTD.

**KORE**  
TMT REBARS