

超高强度热处理锚杆钢筋

超高强度热处理锚杆钢筋是将热轧钢筋感应热处理而成的高性能钢材，广泛应用于煤矿巷道、公路边坡、隧道、坝体、城市基坑等的锚固、支护、加固等工程和预应力混凝土工程，尤其在煤矿中用量巨大。

该产品不仅强度级别高于普通热轧产品，更有效减少岩体变形，控制围岩破坏范围，而且具有极佳的耐冲击性能，可抵抗突发冲击地压，有利于保障采矿生产的安全。

本产品已通过安标国家矿用产品安全标志中心认定。

产品执行标准：MT 146.2 YB/T4363 GB/T 20065



产品性能 Product performance

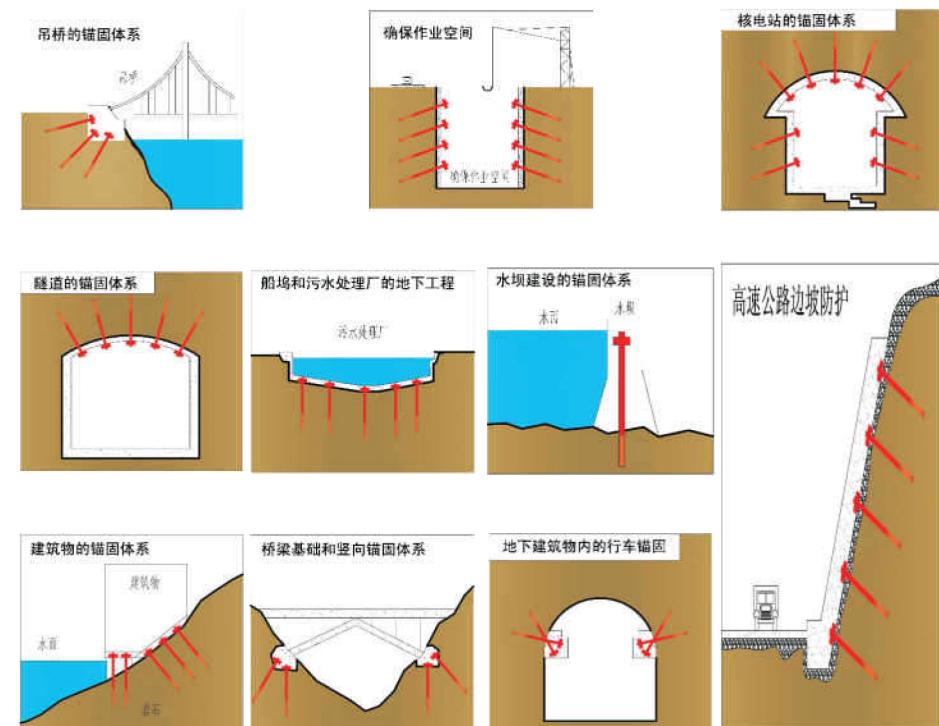
屈服强度 Yield strength R _e /MPa	抗拉强度 Tensile strength R _m /MPa	断后伸长率 Elongation after fracture A/%	最大力下 总伸长率 Elongation Under Maximum Force Agt/%	室温冲击吸收功 Impact Absorb Energy kv·J
不小于 Not less than				
600	750	19	9	90
700	850	17	7.5	80
785	930	16	5.5	60
830	1030	15	4.5	50

High strength rock bolt/ anchor bolt

High strength rock bolt is an advanced rock bolt which can ensure the anchoring effect for complex ground conditions ranging from sand and gravel to inconsistent fill, boulders, rubble and weathered rock. And It is widely used in tunneling, mining, slope stabilization and foundation support. This product not only have higher strength grade than normal hot rolled steel bars, but also have excellent anti-impact properties.

Our Rock bolt has already been approved by the National Mining Products Safety Approval and Certification Center.

Product standard: MT 146.2 YB/T4363 GB/T 20065



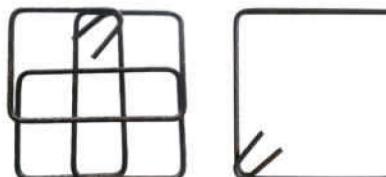
高强度热处理箍筋

高强度热处理箍筋是课题开发出的另一种市场用量更大的产品，本产品比目前普遍应用的箍筋强度提高一倍，同时具有良好的弯曲性能，可以对混凝土起到构件的约束作用，改善混凝土的脆性，提高其强度和延性，从而改善结构的抗震性能。同时，还能提高钢筋混凝土构件的受剪承载力，并节约钢材，降低构建的尺寸和自重。

产品执行标准：YB/T4425 GB 50010 CECS 347



箍筋模型
Stirrup model



高强度热处理箍筋的基本种类
Basic types of high strength heat treated stirrups

产品性能 Product performance

屈服强度 Yield strength ReI/MPa	抗拉强度 Tensile strength Rm/MPa	强屈比 yield ratio Rm/Re/%	断后伸长率 elongation after fracture A/%	最大力下总伸长率 Elongation Under Maximum Force Agt/%	弯曲性能 Bending property
不小于 Not less than					
800	970	1.20	15.00	3.5	性能要求 performance requirement 弯曲180° 后弯曲处 无裂痕 After bending 180 degrees no crack 弯心直径/mm Bending center diameter /mm 钢筋公称 直径 的3倍 3 times of the diameter
900	1070				
1000	1170	1.15	12.00		
1100	1270				
1200	1370	1.10	10.00		

High strength heat treatment stirrup

High strength heat treatment stirrup is another popular steel product, which is already consumed 20–30 million tons/year.

Characteristics: high strength, good bending performance, Improve the seismic performance of the structure. Improve the shear bearing capacity of reinforced concrete parts and low cost, more light, save space.

Product standard: YB/T4425 GB 50010 CECS 347



白沟国际箱包交易中心
Luggage Baigou International Trading Center



世贸大厦 World Trade Building



河北沧州台创幼儿园
Hebei Cangzhou DHC kindergarten

高强度高韧性钢结构用钢拉杆

高强钢拉杆是以碳素结构钢和合金结构钢为原材料，经机加工、热处理、表面防腐处理等工序制作而成的建筑用钢结构件，并辅以调节套筒、锁母和接头等零部件组合成套。钢拉杆作为建造巨型、大跨度建筑物及舰船船坞的钢结构重要组件，主要用于建筑工程项目中受预应力的部位和大跨度建筑，在中国的需求量与日俱增。本产品在强度提高的同时，塑性指标没有降低，满足了建筑设计上强度等量代换的使用原则。

产品执行标准：GB/T 20934 JISG 3109 ASTMA 722/A722M



高强度高韧性钢结构用钢拉杆
Steel tie rod for steel structure with high strength and toughness



北京城市高架14号线车站
Beijing high speed rail line 14 station

High strength and high toughness steel tie rod

<http://www.longtonsteel.com/>

High strength steel tie rod is made of carbon steel and alloy steel, which are produced by machining, heat treatment and surface corrosion treatment and combined with sleeve, locknut, and joint parts.

Characteristics: high strength, good toughness, light and good appearance and liable.

Widely applied in the mega stadium, airport, railway station, bridge, port, wharf, tunnel and seawall reinforcement project, etc.

Product standard: GB/T 20934 JISG 3109 ASTMA 722/A722M

产品力学性能 Mechanical properties of products

公称直径 Nominal diameter Dn/mm	规定非比例 延伸强度 2% Elongation limit Rp0.2/MPa	抗拉强度 Tensile strength Rm/MPa	断后 伸长率 Elongation after fracture A%	断面 收缩率 Reduction of area after fracture Z%	冲击吸收功 Impact Absorb Energy Akv/J	
					温度 °C	J
20-160	550	750	17	50	+20	45
					0	36
					-20	34
					-40	27
20-160	650	850	15	45	+20	45
					0	36
					-20	34
					-40	27
20-100	785	980	12	45	+20	42
					0	36
					-20	34
					-40	25
20-80	830	1030	12	45	+20	42
					0	32
					-20	25
					-40	20
20-80	880	1035	12	45	+20	40
					0	32
					-20	25
					-40	20
20-80	930	1080	12	45	+20	40
					0	32
					-20	25
					-40	20
20-50	1080	1230	10	45	+20	10
					0	32
					-20	20
					-40	16

钢筋混凝土用热处理钢筋

钢筋混凝土用热处理钢筋是作为钢筋混凝土结构和构件中配置的主筋使用的一种高强高性能钢材,其屈服强度等级为600MPa、700MPa和800MPa,全部高于目前国家标准GB1499.2-2007中规定的最高级别HRB500,可提高建筑物的安全抗震性能,而且能够降低钢筋用量,节省钢材,避免钢筋拥挤、易于施工。

产品执行标准: GB1499.2 GB50010



钢筋混凝土用热处理钢筋基本外形
Basic shape of heat treated steel bars for reinforced concrete

产品性能 Product performance

规定非比例延伸强度 2% Elongation limit Rp0.2/MPa	抗拉强度 Tensile strength Rm/MPa	断后伸长率 Elongation after fracture A/%	最大力下总伸长率 Elongation Under Maximum Force Agt/%	强屈比 Yield Ratio %
不小于 Not less than				
600E(抗震钢筋)	800	20	9.0	1.25
600	800	20	7.5	1.25
700	900	18	7.5	1.25
800	1000	15	7.5	1.25

Heat treatment bars for reinforced concrete

<http://www.longtonsteel.com/>

Heat treatment bars for reinforced concrete is a kind of high-strength high performance steel used in the construction of reinforced concrete structure. The nation standard GB1499.2-2007 required yield strength value is HRB500, our product could reach 600MPa, 700MPa and 800MPa. Our Heat treatment bars could improve the safety and seismic performance of buildings and could save the cost and steel to make Construction is convenient.

Product standard: GB1499.2 GB50010



600MP级主筋高强度格栅拱架
600MP grade high strength reinforcement grid arch



用于柱的主筋
The main tendons used for a column



河南豫龙焦化有限公司脱硫塔地基
Henan Yulong Coking Co., desulfurization tower foundation

预应力混凝土用热处理钢筋

预应力混凝土用热处理高强屈比钢筋是国家科技支撑计划项目“高强钢筋与高强高性能混凝土应用关键技术研究”课题开发出的新型预应力钢材，覆盖了中、高级强度范围，延伸性优良，生产过程无污染。该产品用以制作民居、厂房等房屋的圆孔板、双T板、叠合板等预制预应力构件，填补了中高强预应力钢筋的市场空白，尤其适合满足新农村建设的需求。

产品执行标准：GB/T 5223.3 YB/T156 Gb50010 JIS G 3137



典型产品外形 Typical product profile

产品性能 Product performance

公称直径 Nominal diameter Dn/mm	抗拉强度 Tensile strength Rm/MPa	规定非比例伸长强度 2% Elongation limit Rp0.2/MPa	断后伸长率 Elongation after fracture A%	最大力下总伸长率 Elongation under maximum force Agt/%	1000h低松弛值 1000h relaxation value (70%Rm)%
5.0-16.0	对所有规格： For all specifications: 970 1080 1230 1420 1570	对所有规格： For all specifications: 800 930 1080 1280 1420	12.0 7.0	3.5	2.0

Heat treatment bars for prestressed concrete

Heat treatment bars for prestressed concrete is divided into middle grade and high grade type. It has excellent extensibility and there is no pollution in the production process. Applied to make the round hole plate, double T plate, composite plate and other precast prestressing components

Product standard: GB/T 5223.3 YB/T156 Gb50010 JIS G 3137 Q/AYLTG 001



叠合板 Laminated plates



预应力钢筋 Prestressed reinforcement



居民房 Residential house