

## Material properties

<b>Material</b>	<b>1010 (USA / AISI)</b>
<b>Group</b>	Structural and constructional steels
<b>Subgroup</b>	
<b>Comment</b>	Compos.only appl. to shapes and products

<b>Application</b>	Easily cold formed by heading, extruding, upsetting, bending, and other deforming processes. Uses for wires include electroplated products, such as racks, storage bins, shopping carts, fan guards, and jewelry, and unplated such as wires, staples, hardware, and barbed wire.
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Yield Stress[ksi]			
Dimension	Min	Max	Approx
cold drawn bar, 19-32 mm round or thick.	44	-	-
cold drawn	44	-	-
CQ sheet,1.6-5.8 mm round or thickness	30	-	-
hot rolled bar, 19-32 mm round or thick.	26	-	-

Tensile Stress[ksi]			
Dimension	Min	Max	Approx
cold drawn bar, 19-32 mm round or thick.	53	-	-
cold drawn	53	-	-
CQ sheet,1.6-5.8 mm round or thickness	49	-	-
hot rolled bar, 19-32 mm round or thick.	47	-	-

Elongation A5 [%]			
Dimension	Min	Max	Approx
cold drawn bar, 19-32 mm round or thick.	20.0	-	-
cold drawn	20.0	-	-
CQ sheet,1.6-5.8 mm round or thickness	40.0	-	-
hot rolled bar, 19-32 mm round or thick.	28.0	-	-
Annealed	32.0	-	-

Hardness	
Dimension	Hardness
cold drawn bar, 19-32 mm round or thick.	105 HB

Hardness	
Dimension	Hardness
cold drawn	105 HB
hot rolled bar, 19-32 mm round or thick.	95 HB
Annealed	< 99 HV
Skin Rolled	95 - 115 HV

Chemical Composition [%]			
Criterion	Min	Max	Approx
C	0.0800	0.1300	-
Si	0.0800	0.6000	-
Mn	0.3000	0.6000	-
P	-	0.0400	-
S	-	0.0500	-

- Si depends on dimension

Cross Reference Table		
Material	Standard	Country
<b>XC 10</b>	<b>AFNOR NF</b>	France
<b>C 10 RR</b>	<b>AFNOR NF</b>	France
<b>5047</b>	<b>AMS</b>	USA
<b>5042</b>	<b>AMS</b>	USA
<b>5050</b>	<b>AMS</b>	USA
<b>5061</b>	<b>AMS</b>	USA
<b>1010</b>	<b>AS</b>	Australia
<b>A 787 Grade 1010</b>	<b>ASTM</b>	USA
<b>A 510 1010</b>	<b>ASTM</b>	USA
<b>A 108 1010</b>	<b>ASTM</b>	USA
<b>A 512 1010</b>	<b>ASTM</b>	USA
<b>A 519 1010</b>	<b>ASTM</b>	USA
<b>A 787 Grade MT 1010</b>	<b>ASTM</b>	USA
<b>A 519 MT 1010</b>	<b>ASTM</b>	USA
<b>A 513 MT 1010</b>	<b>ASTM</b>	USA
<b>A 29 M1010</b>	<b>ASTM</b>	USA
<b>A 29 10L10</b>	<b>ASTM</b>	USA
<b>A 513 1010</b>	<b>ASTM</b>	USA
<b>A 512 MT1010</b>	<b>ASTM</b>	USA

Cross Reference Table		
Material	Standard	Country
A 575 M1010	ASTM	USA
A 29 1010	ASTM	USA
En2A	B.S.	United Kingdom
040 A 10	B.S.	United Kingdom
12010	CSN	Czech Republic
C10E	DIN	Germany
Ck 10	DIN	Germany
1.1121	EN	European Union
C 10 E	EN	European Union
2 C 10	EN	European Union
10	GB	China
8	GOST	Russia
10	GOST	Russia
C10e	ISO	International
S 10 C	JIS	Japan
S 09 CK	JIS	Japan
C 1121	JUS	Yugoslavia
C 10	MSZ	Hungary
C 10-2	NBN	Belgium
M1010	SAE	USA
1010	SAE	USA
Ck 10	SNV	Switzerland
1265	SS	Sweden
OLC 10 X	STAS	Romania
F.1510 (C 10 k)	UNE	Spain
2 C 10	UNI	Italy
2 C 15	UNI	Italy
G10100	UNS	USA
1.1121	WN	Germany