

Typical Mechanical Properties of Stainless Steel Bars

AISI Type	Condition	UTS Kg/mm ² min.	YS (0.2% Offset) Kg/mm ² min.	%EL in 50 mm. min.	R. A. % min.
AUSTENITIC					
302	Annealed	53.0	21.0	40	50
304					
304L					
309	Annealed	do	do	do	do
310	(Hot finished)				
316					
316L					
317	Annealed	53.0	21.0	40	50
	(Hot finished)				
321	"	do	do	do	do
347	"	do	do	do	do
FERRITIC					
430	Annealed	49.0	28.0	20	45
436	"	49.0	28.0	20	45
MARTENSITIC					
403	Annealed	49.0	28.0	20.0	45.0
	Hardened & tempered	84.4	63.5	12.0	40.0
410	Annealed	49.0	28.0	20.0	45.0
	Hardened & tempered	84.0	63.5	12.0	40.0

Typical Mechanical Properties of Stainless Steel Sheets/Plates

AISI Type	Condition	UTS Kg/mm ² min.	YS (0.2% Offset) Kg/mm ² min.	%EL in 50 mm. min.	Hardness Max. RB.
AUSTENITIC					
301	Annealed	53.0	21.0	40.0	94
302	"	53.0	21.0	40.0	94
304	"	53.0	21.0	40.0	94
304I	"	49.0	17.5	40.0	94
309	"	53.0	21.0	40.0	95
310	"	53.0	21.0	40.0	95
316	"	53.0	21.0	40.0	96
316L	"	49.0	17.5	40.0	96
317	"	53.0	21.0	35.0	96
321	"	53.0	21.0	40.0	94
347	"	53.0	21.0	40.0	94
FERRITIC					
430	"	45.5	21.0	22.0	94
446	"	53.0	28.0	20.0	95
MARTENSITIC					
403	"	45.5	21.0	20.0	94
410	"	45.5	21.0	22.0	88

STAINLESS STEEL SHEET FINISH

Finish
Number

Description

1. Hot rolled, annealed and pickled. This finish is mainly used where appearance is secondary.
- 2D. Dull, smooth cold rolled finish: Best suited for deep drawing operations due to better retention of lubricants.
- 2B. Most commonly used finish obtained by Skinpass on 2D finish material.
3. A polished finish obtained with coarse abrasives of 100-120 grain size.
4. A standard polished finish produced with abrasives (grain size 120 to 150) finer than those used for No. 3 finish.
6. Dull satin finish; tampico brushed: Used for architectural applications where high lustre is undesirable.
7. Has a high degree of reflectivity; produced by buffing of finely ground surface, but the grit lines are not removed fully.
8. Mirror finish used for applications requiring high reflectivity like press plates, small mirrors, reflectors.
Hairline : A special polished finish exhibiting continuous lines produced by abrasives.