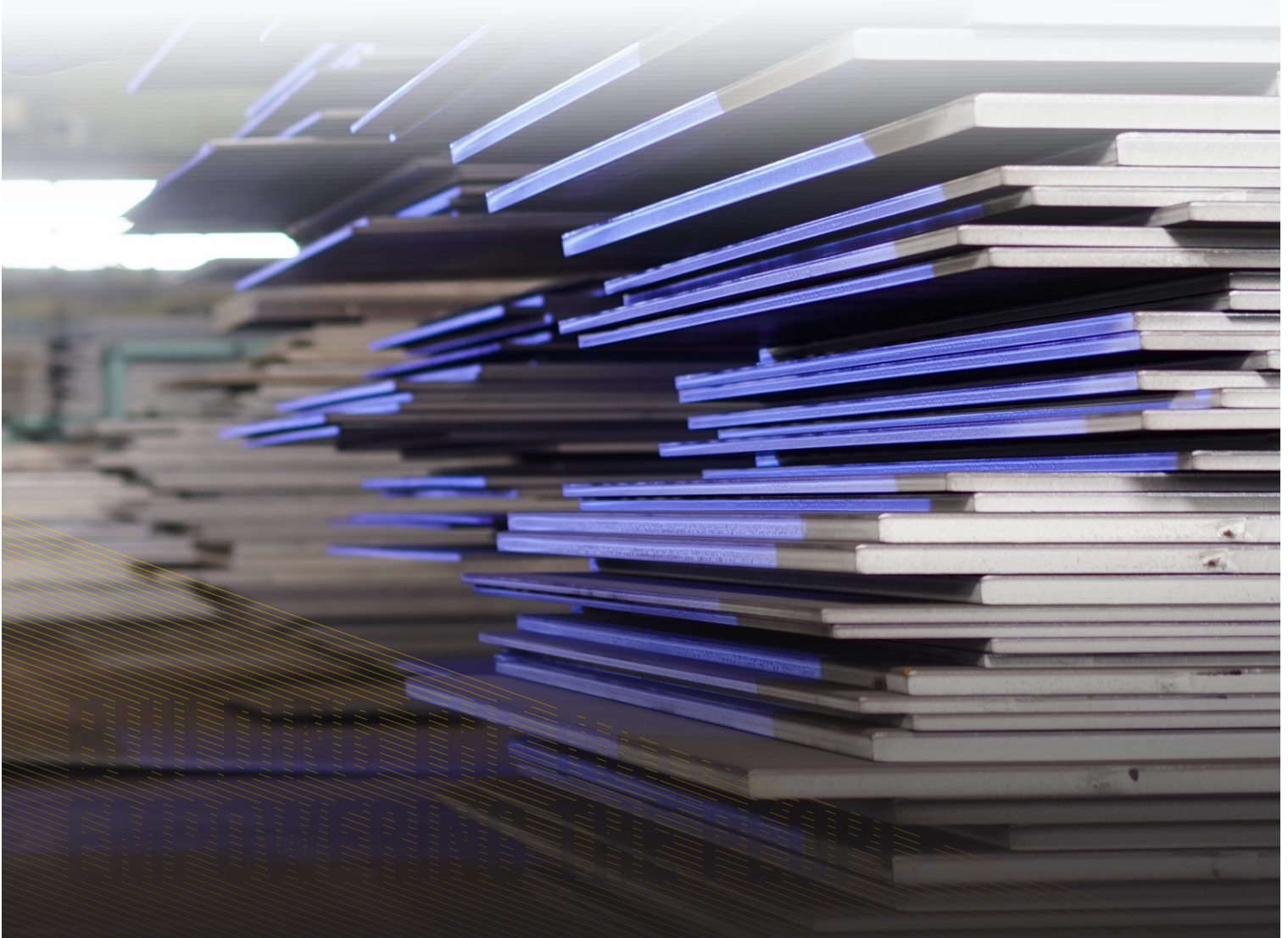


PLATE

STEEL PLATE PRODUCT CATALOGUE



AVAILABLE SIZE OF PLATE PRODUCT

[illegible]

2 Layer Design/Gas Cutting
 Narrow Slab & 2 Layer Design
 Not Available Size

Narrow Slab
 Negotiable

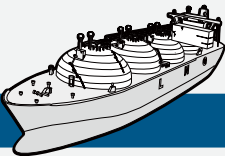
[illegible]

for TMCP need further discussion

2 Layer Design/Gas Cutting
 Narrow Slab & 2 Layer Design
 Not Available Size

Narrow Slab
 Negotiable

STEEL PLATE FOR SHIPBUILDING



Shipbuilding Plate

Specification	Supply Condition	Tensile Strength (MPa)	Yield Point (MPa)	Thickness (mm)
A	As-Rolled	400-520	≥235	6 - 10
B				10 - 15
D				15 - 20
D-TM	TMCP	440-590	≥315	20 - 25
E-TM				25 - 30
AH32				30 - 40
AH32-TM	As-Rolled	440-570 (KR, VL)	≥315	40 - 49
DH32	TMCP			6 - 10
DH32-TM	As-Rolled			10 - 15
EH32-TM	TMCP	490-620	≥355	15 - 20
AH36	As-Rolled			20 - 25
AH36-TM	TMCP			25 - 30
DH36	As-Rolled	490-630 (KR, VL)	≥355	30 - 40
DH36-TM	TMCP			40 - 49
EH36-TM	As-Rolled			6 - 10
AH40	TMCP	510-650	≥390	10 - 15
DH40				15 - 20
EH40				20 - 25
				25 - 30
				30 - 40
				40 - 49

Certified by:

- Biro Klasifikasi Indonesia
- Lloyd’s Register

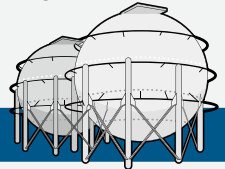
- American Bureau of Shipping
- CR Classification Society

- Bureau Veritas
- Class NK

- DNV-GL
- RINA

- Korean Register

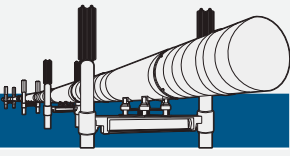
STEEL PLATE FOR PRESSURE VESSEL



ASTM Plate

Specification	Tensile Strength (MPa)	Yield Point (MPa)	Thickness (mm)
ASTM A285 Pressure Vessel Plates, Carbon Steel, Low and Intermediate Tensile Strength			
A285C	380-515	≥205	6-50
ASTM A515 Pressure Vessel Plates, Carbon Steel, for Intermediate and Higher Temperature Service			
A515-60	415-550	≥220	6-50
A515-65	450-585	≥240	6-50
A515-70	485-620	≥260	6-50
ASTM A516 Pressure Vessel Plates, Carbon Steel, for Moderate and Lower Temperature Service			
A516-55	380-515	≥205	6-40
A516-60	451-550	≥220	6-40
A516-65	450-585	≥240	6-40
A516-70	485-620	≥260	6-40

STEEL PLATE FOR PIPELINE



API Plate

Specification	Tensile Strength (MPa)	Yield Strength (MPa)	Thickness (mm)
API-2W Steel Pipe for Offshore Structure (API-2W 5 th Edition)			
		t≤25	25<t≤60mm
API-2W - Grade 50	≥448	345-517	345-483
API 5L Steel Pipe for Pipeline Transportation System (API 5L 46 th Edition) for Non-Sour Application			
API-B PSL 1	≥415	245	6-50
API-X42 PSL 1	≥415	290	6-50
API-X46 PSL 1	≥435	320	6-50
API-X52 PSL 1	≥460	360	6-50
API-BR PSL 2	415-655	245-450	6-50
API-X42R PSL 2	415-655	290-495	6-50
API 5L Steel Pipe for Pipeline Transportation System (API 5L 46 th Edition) for Non-Sour Application			
API-BM PSL 2	415-655	240-450	6-50
API-X42M PSL 2	415-655	290-495	6-50
API-X46M PSL 2	435-655	320-525	6-50
API-X52M PSL 2	460-760	360-530	6-50
API-X56M PSL 2	490-760	390-545	6-50
API-X60M PSL 2	520-760	415-565	10-50
API-X65M PSL 2	535-760	450-600	10-35
API-X70M PSL 2	570-760	485-635	10-25
API 5L Steel Pipe for Pipeline Transportation System (API 5L 46 th Edition Annex J) for Offshore Application			
API-X42MO PSL 2	415-655	290-495	6-50
API-X46MO PSL 2	435-655	320-520	6-50
API-X52MO PSL 2	460-760	360-525	6-50
API-X56MO PSL 2	490-760	390-540	6-50
API-X60MO PSL 2	520-760	415-565	10-50
API-X65MO PSL 2	535-760	450-570	10-35
API-X70MO PSL 2	570-760	485-605	10-25

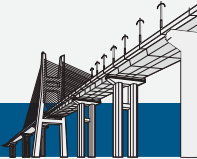
STEEL PLATE FOR INFRASTRUCTURE



ASTM Plate

Specification	Tensile Strength (MPa)	Yield Point (Mpa)	Thickness (mm)
ASTM A36 Carbon Structural Steel			
A36	400-550	≥250	6-75
ASTM A283 Low and Intermediate Tensile Strength Carbon Steel Plates			
A283-C	380-515	≥205	6-75
A283-D	415-550	≥230	6-75
ASTM A572 High Strength Low-Alloy Nb-V Structural Steel			
A572-50	≥450	≥345	TY1 : 6-75 TY2 : 6-75 TY3 : 6-75
A572-60	≥520	≥415	10-32
A572-65	≥550	≥450	10-32

STEEL PLATE FOR INFRASTRUCTURE



ASTM Plate

Specification	Tensile Strength (MPa)	Yield Point (MPa)	Thickness (mm)
ASTM A573 Structural Carbon Steel Plate of Improved Toughness			
A573-70	480-620	≥290	6-40
ASTM A709 Structural Steel for Bridge			
A709-36	480-550	≥250	6-75
A709-50	≥450	≥345	TY1 : 6-75 TY3 : 6-75

JIS Plate

Specification	Tensile Strength (MPa)	Yield Point (MPa)	Thickness (mm)
JIS G3101-Rolled Steel for General Structure			
SS400	400-510	400-510	6-80
SS490	490-610	490-610	6-75
SS540	≥540	≥540	6-40
JIS G3106-Rolled Steel for Welded Structure			
SM400	A	≥245	6-75
	B	≥235	6-75
	C	≥215	6-75
SM490	A	≥325	6-75
	B	≥315	6-75
	C	≥295	6-75
	YA	≥365	6-75
	YB	≥355	6-75
SM520	B	≥365	6-75
	C	≥355	6-75
		≥335	
SM570TMC		≥460	10-25
		≥450	
JIS G3136-Rolled Steel for Building Structure			
SN400	A	≥235, ≥215	6-75
	B	235, 235-355, 215-335	6-75
	C	235-355, 215-335	16-75
SN490	B	≥325, 325-445	6-40
	C	325-445	16-40

EN Plate

Specification	Tensile Strength (MPa)	Yield Point (MPa)				Thickness (mm)
EN 10025-2 Non-Alloy Structural Steel						
		t≤16	16<t≤40	40<t≤63	63<t≤75	
S235JR	360-510	235	225	215	215	6-75
S235J0	360-510	235	225	215	215	6-75
S275JR	410-560	275	265	255	245	6-75
S275J0	410-560	275	265	255	245	6-75
S275J2	410-560	275	265	255	245	6-75
S355JR	470-630	355	345	335	325	6-75
S355J0	470-630	355	345	335	325	6-75
S355J2	470-630	355	345	335	325	6-75
S355K2	470-630	355	345	335	325	6-75

EN Plate

Specification	Tensile Strength (MPa)	Yield Point (MPa)			Thickness (mm)	
EN 10025-3 Normalized/ Normalized Rolled Weldable Fine Grain Structural Steel						
		t≤16	16<t≤40	40<t≤63	63<t≤75	
S275N	370-510	≥275	≥265	≥255	≥245	6-75
S275NL	370-510	≥275	≥265	≥255	≥245	6-75
S355N	470-630	≥355	≥345	≥335	≥325	6-75
S355NL	470-630	≥355	≥345	≥335	≥325	6-75

EN 10025-4 Thermomechanical Rolled Weldable Fine Grain Structural Steel

	t<40	40<t≤63	63<t≤65	t≤16	16<t≤40	40<t≤63	63<t ≤65	
S275M	370-530	360-520	350-510	≥275	≥265	≥255	≥245	10-65
S275ML	370-530	360-520	350-510	≥275	≥265	≥255	≥245	10-65
S355M	470-630	450-610	440-600	≥355	≥345	≥335	≥325	10-65
S355ML	470-630	450-610	440-600	≥355	≥345	≥335	≥325	10-65
S420M*	520-680	450-610	440-600	≥420	≥400	≥390	≥380	10-65
S420ML*	520-680	500-660	480-640	≥420	≥400	≥390	≥380	10-65
S460M*	540-720	530-710	510-690	≥460	≥440	≥430	≥410	10-65
S460ML*	540-720	530-710	510-690	≥460	≥440	≥430	≥410	10-65

(*) Need further discussion for thickness above 40mm and below 15mm

AS/NZS Plate

Grade Designation	Tensile Strength (MPa)				Yield Stress (MPa)				Thickness (mm)
AS/NZS 3678:2016 Structural Steel – Hot-Rolled Plates, Floorplates and Slabs									
	t≤20	6<t≤20	6≤t≤8	8<t≤12	12<t≤20	20<t≤32	32<t≤50	50<t≤75	
250	≥410	≥410	≥280	≥260	≥250	≥250	≥250	≥240	6-75
300	≥430	≥430	≥320	≥310	≥300	≥280	≥280	≥270	6-75
350	≥450	≥450	≥360	≥360	≥350	≥340	≥340	≥340	6-75
400	≥480	≥480	≥400	≥400	≥380	≥360	≥360	≥360	6-75
450	≥520	≥500	≥450	≥450	≥450	≥420	≥400	-	6-50

IS Plate

Specification		Tensile Strength (MPa)	Yield Point (MPa)			Thickness (mm)
IS 2062:2011 Hot Rolled Medium and High Tensile Structural Steel						
			t<20	20≤t≤40	t>40	
E250	A	≥410	≥250	≥240	≥230	6-75
	BR					
	B0					
	C					
E350	A	≥410	≥350	≥330	≥320	6-75
	BR					
	B0					
	C					

SNI Plate

Thickness (mm)	Yield Strength (MPa)	Tensile Strength (MPa)
BjPS		
6-25	≥245	400-510

