



PT. BENTENG ANUGERAH SEJAHTERA
STEEL PRODUCT & INDUSTRIAL HARDWARE



COMPANY PROFILE



**ONE STEP SOLUTION FOR
CARBON STEEL PRODUCTS**



ABOUT US

Since 1994, **PT. Benteng Anugerah Sejahtera** that based in Surabaya has served various kinds of carbon steel needs from distribution, trading purpose, to large projects around Indonesia.

To become the first choice of carbon steel supplier in Indonesia, we continue to grow in product variations, distribution efficiency, experience and market comprehension in order to constantly fulfill market needs.

We have the most complete range of carbon steel products that supported with competitive prices. All of our products from steel plates, pipes, bars, profiles to welding electrodes have been confirmed the quality with international standards SNI, AISI, ASTM, and JIS.

VISION

Contribute to build the nation, by become the first choice carbon steel supplier in Indonesia and overseas countries that also beneficial to stakeholders' welfare.

MISSION

To supply carbon steel product needs alongside with excellent services, trusted operational systems, and remarkable human resources for maximum stakeholders' welfare and satisfaction.



STEEL PLATES



CARBON STEEL PLATE

STRUCTURAL & HEAVY EQUIPMENT STEEL

Specification

ASTM A6 & ASTM A20 : permissible variations in dimensions and weight

EN 10029 : tolerance on dimensions, shape, and mass for hot rolled steel plates 3.0 mm thick or above

JIS G3193 : dimensions, weight and permissible variations of hot rolled plates, sheets, and strip

Ship Register : in accordance with the rules of each ship register
(ABS, BV, DNV, GL, KR
LR, NK, RINA & BKI)

Wide ranges of sizes

GDS steel plates are available in range of thicknesses from 3.0 mm to 75 mm, up to 120 mm in special cases, in width from 1,219 mm to 2,500 mm, and in lengths from 2,438 to 12,192 mm, and in unit weight up to 7.4M/Tons per steel plates.

1. Steel plates for general use | Steel plates for boilers and pressure vessels use

Low carbon structural steel plates					
Specification	Designation Grade	Range of available sizes			
		Thickness (mm)	Width (mm)	Length (mm)	Max. Weight per Plate (M/Ton)
As3678	250	8 - 75	1,219 - 2,500	2,438 - 12,192	7.4
ASTM A36	A 36				
ASTM A 283	A 283A, B, C & D				
ASTM A 573	A 573 - 58				
EN 10025 - 2 : 2004	S235 JR, JO, J2 S275JR, JO, J2				
JIS G3101	SS330 & SS400				
JIS G3106	SM400A, B & C				

High strength low alloy structural steel plates					
Specification	Designation Grade	Range of available sizes			
		Thickness (mm)	Width (mm)	Length (mm)	Max. Weight per Plate (M/Ton)
As3678	350	8 - 75	1,219 - 2,500	2,438 - 12,192	7.4
ASTM A36	A572-42, 50 & 55				
ASTM A 283	A573-65 & 70				
ASTM A 573	300W or 44W				
EN 10025 - 2 : 2004	S235 JR, JO, J2 & K2				
JIS G3101	Ss490	8 - 75	1,219 - 2,500	2,438 - 12,192	7.4
JIS G3106	SM 490YA & YB Sm520 B & C	12 - 75			

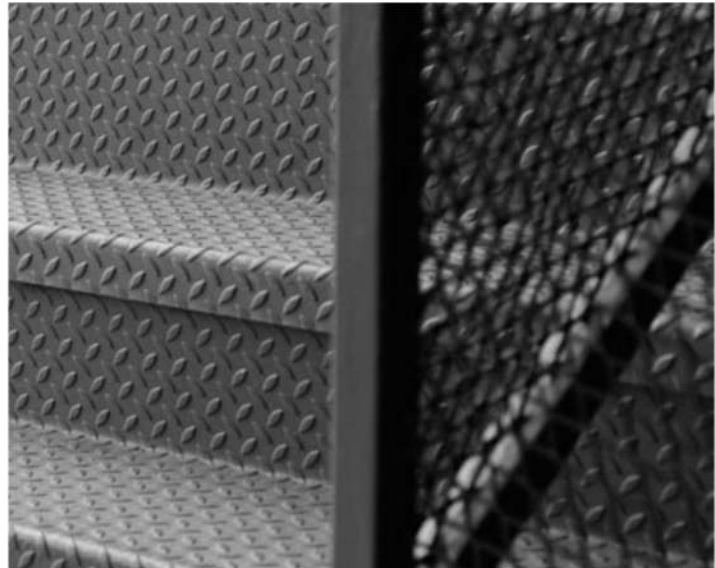
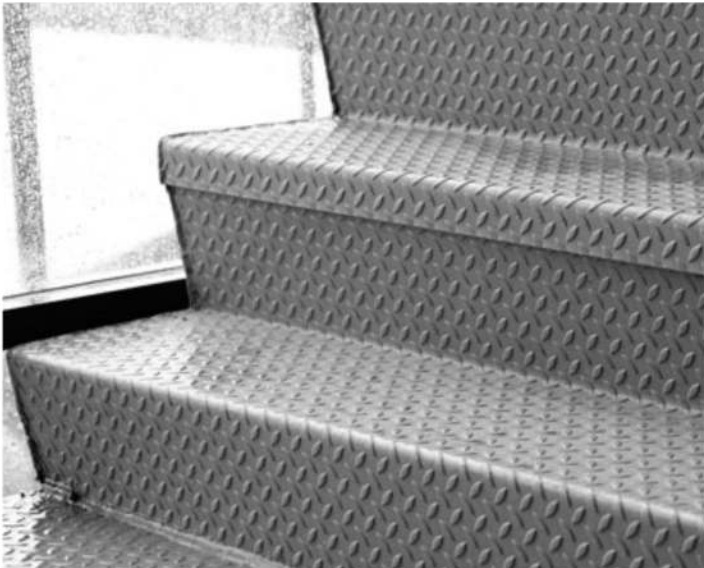
3. Shipbuilding steel plates (approval of GDS steel plates)

Hull structural steel plates (mild steels)					
Ship Register	Designation Grade Class	Range of available sizes			
		Thickness (mm)	Width (mm)	Length (mm)	Max. Weight per Plate (M/Ton)
ABS	A, B & D	8 - 50	1,219 - 2,500	2,438 - 12,192	7.4
BKI	KI - A, B & D	8 - 25			
BV	A	8 - 40			
	B & D	8 - 25			
DNV	NVA, NVB & NVD	8 - 40			
GL	A	8 - 40			
	B & D	8 - 25			
KR	RA	8 - 40			
	RB & RD	8 - 25			
LR	A	8 - 40			
	B & D	8 - 25			
NK	KA, KB & KD	8 - 40			
RINA	A, B & D	8 - 40			

High strength hull structural steel plates (high tensile steels)					
Ship Register	Designation Grade Class	Range of available sizes			
		Thickness (mm)	Width (mm)	Length (mm)	Max. Weight per Plate (M/Ton)
ABS	AH32, DH32, AH36 & DH36	12 - 50	1,219 - 2,500	2,438 - 12,192	7.4
BV	AH32, DH32, AH36 & DH36	12 - 40			
DNV	NVA32, NVD32, NVA36 & NVD36				
GL	A32, D32, A36 & D36				
LR	AH32, DH32, AH36 & DH36				
NK	KA32, KD32, KA36 & KD36				
RINA	AH32, DH32, AH36 & DH36				

CARBON STEEL PLATE

STRUCTURAL & HEAVY EQUIPMENT STEEL

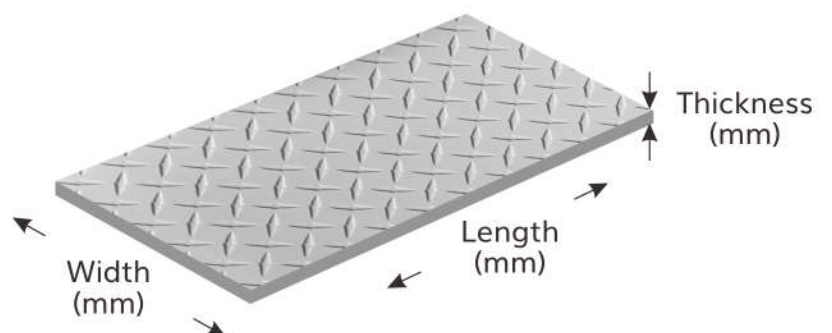
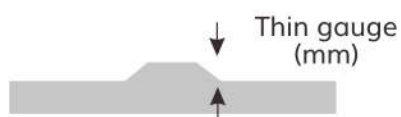


Specification

- Can be supplied in coil form or plate
- Gauge : - Thin Gauge = 2.3 - 6 mm
 - Thin Gauge = 6 - 12.7 mm
- Length : 2,438 - 12,192 mm
- Width : 1200 mm
- Thickness : 8 - 75 mm
- Max. Weight per plate : 7.4 M/Ton

Applications

- Automotive parts
- Engineering stairs
- Industrial flooring
- Railway construction





BARS



ROUND BAR ST 41

STRUCTURAL & CONSTRUCTIONAL STEEL

Specification

- Cold drawn steel bars
- Bright steel shafting bars
- Equivalent to :
 - AISI 1006 - SAE 1006 - UNS 10060
 - AISI 1008 - SAE 1008 - UNS 10080
- Length 6.0 meters
- Matric size : 3 - 75 mm
- Imperial size : $\frac{3}{16}$ - 3

Applications

- Automotive parts
- Shaft, bolt & nuts
- Axle, rail, & connecting rods
- Construction works

Chemical Composition

- C (max) : 0.10%
- Si (max) : 0.20 %
- Mn (max) : 0.75 %
- P (max) : 0.045 %
- S (max) : 0.045 %

Mechanical Properties

- Tensile Strength (kg/mm^2) : 46-77 (min)
- Hardness (Brinell) : 69-100

ROUND BAR JIS S45C

STRUCTURAL, COSTRUCTIONAL STEEL & MACHINERY STEEL

Specification

- Hot rolled & forged bars
- Equivalent to St 60
- Available : Hot rolled & cold drawn
(S45C Pre machine)
- Length 6.0 meters
- Matric size : 13 - 600 mm

Chemical Composition

- C (max) : 0.42 - 0.50 %
- Si (max) : 0.17 - 0.37 %
- Mn (max) : 0.50 - 0.80 %
- P (max) : 0.035 %
- S (max) : 0.035 %
- Cr (max) : 0.25 %
- Ni (max) : 0.25 %

Applications

- Axles & cog wheels
- Camshaft & mechanical engineering
- Tie rods & tubes
- Automotive parts

Mechanical Properties

- Yield Strength (kgf/mm²) : 36
- Tensile Strength (kgf/mm²) : 61
- Elongation (%) : 16
- Contraction (%) : 40
- Hardness (HB) : 197

Similar Foreign Steel Grade

- AISI/SAE : 1045
- JIS : S45C
- DIN : Ck 45



SQUARE BAR

STRUCTURAL & CONSTRUCTIONAL STEEL

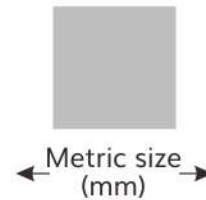


Specification

- Cold drawn steel bars : AISI 1006 - AISI 1008
- Hot Rolled bars : JIS G 3101 - SS400
- Length 6.0 meters
- Metric size : 6 x 6 mm - 65 x 65 mm

Applications

- Automotive parts
- Fabrication
- Shipbuilding
- Construction works

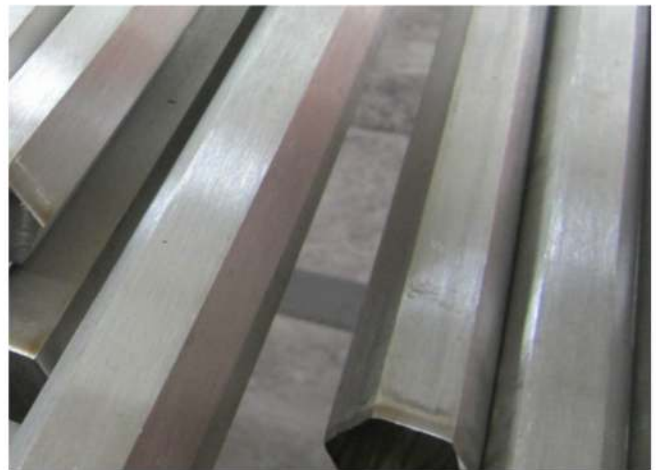


Mechanical Properties

- Tensile Strength (kg/mm^2) : 450 - 500
- Hardness (Brinell) : 69-100
- Elongation (%) : 28 - 34

HEXAGONAL BAR

STRUCTURAL & CONSTRUCTIONAL STEEL

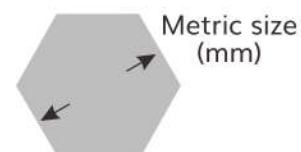


Specification

- Cold drawn steel bars : AISI 1006 - AISI 1008
- Hot Rolled bars : JIS G 3101 - SS400
- Length 6.0 meters
- Metric size : 6 x 6 mm - 65 x 65 mm

Applications

- Automotive parts
- Fabrication
- Shipbuilding
- Construction works



Mechanical Properties

- Tensile Strength (kg/mm^2) : 450 - 500
- Hardness (Brinell) : 69-100
- Elongation (%) : 28 - 34



PIPES

SEAMLESS PIPE

STRUCTURAL, CONSTRUCTIONAL STEEL, & MACHINERY STEEL



Specification

- Equivalent to Sch 40 & Sch 80
- Length 6.0 meters
- Range of size : $\frac{1}{8}$ - 36 inch
- Outside diameter : 10.30 - 914.00 mm
- Sch 40 : 1.70 - 19.10 mm
- Sch 80 : 2.40 - 31.00 mm

Applications

- Automotive parts
- Shaft, bolt & nuts
- Axle, rail, & connecting rods
- Construction works

Chemical Composition

- Ca	: 0.30 %
- Mn	: 1.20 %
- P	: 0.05 %
- S	: 0.045 %
- Cu	: 0.40 %
- Ni	: 0.40 %
- Mo	: 0.15 %
- Cr	: 0.40 %
- V	: 0.08 %
- Cu+Ni+Cr+ Mo+V	: 1.00 %

CARBON STEEL SQUARE PIPE

STRUCTURAL & CONSTRUCTIONAL STEEL



Specification

- Equivalent to St 50
- Length 6.0 & 12.0 meters
- Size : 20 x 20 mm - 100 x 100 mm
- Thickness : 1.2 - 4.5 mm

Applications

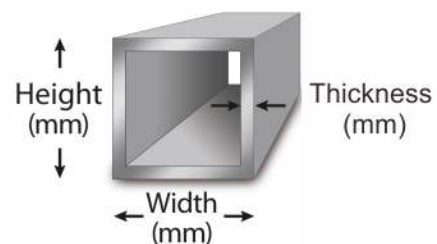
- Construction work
- Industrial machinery
- Building structure
- Fences

Other (tool steel)

- Cold work tool steel AISI 01 / JIS SKS 3
- Cold work tool steel AISI D2 / JIS SKD 11
- Hot work tool steel AISI H 13 / JIS SKD 61

Chemical Composition

- C	: 1.14 %
- Mn	: 0.25 %
- P	: 0.007 %
- S	: 0.012 %
- Cr	: 0.66 %
- Si	: 0.21 %



BLACK & GALVANIZED STEEL PIPE

STRUCTURAL, CONSTRUCTIONAL STEEL, & MACHINERY STEEL



Applications

- Gas systems (black pipe)
- Water systems (galvanized pipe)
- Industrial machinery
- Shipbuilding

Mechanical Properties

- Yield Strength (kgf/mm²) : 21.1
- Tensile Strength (kgf/mm²) : 33.7
- Elongation (%) : 20
- Pipe length : 6.0 meters
- Nominal Size : 21.30-114.10 mm
- Outside Diameter : 21.70-114.90 mm (max)
21.10-113.30 mm (min)
- Thickness : 1.80-2.30 mm
- Weight : 0.87-6.30 kg/m

- Thickness Tolerance : Plus (+) not specified
Minus (-) 8% maximum
- Length Tolerance : Plus/Minus 2%
- Hydrostatic Test Pressure : 50 kgf/m²

Chemical Composition

- P : 0.060 %
- S : 0.060 %



Applications

- Gas systems (black pipe)
- Water systems (galvanized pipe)
- Industrial machinery
- Shipbuilding

Mechanical Properties

- Yield Strength (kgf/mm²) : 21.1
- Tensile Strength (kgf/mm²) : 33.7
- Elongation (%) : 20
- Pipe length : 6.0 meters
- Nominal Size : 21.30-114.10 mm
- Outside Diameter : 21.70-114.90 mm (max)
21.10-113.30 mm (min)
- Thickness : 2.00-2.90 mm
- Weight : 0.96-7.94 kg/m

- Thickness Tolerance : Plus (+) not specified
Minus (-) 8% maximum
- Length Tolerance : Plus/Minus 2%
- Hydrostatic Test Pressure : 50 kgf/m²

Chemical Composition

- P : 0.060 %
- S : 0.060 %



Applications

- Gas systems (black pipe)
- Water systems (galvanized pipe)
- Industrial machinery
- Shipbuilding

Mechanical Properties

- Yield Strength (kgf/mm²) : 20
- Tensile Strength (kgf/mm²) : 33 - 47
- Elongation (%) : 20
- Pipe length : 6.0 meters
- Nominal Size : 15 - 100 mm
- Outside Diameter : 21.30-114.30 mm (max)
21.10-113.10 mm (min)
- Thickness : 2.60-4.50 mm
- Weight : 1.21-12.20 kg/m

Thickness Tolerance : Grade Medium (+15%, -10%)

Length Tolerance : +100mm, -0 mm

Hydrostatic Test Pressure : 50 kgf/m²

Chemical Composition

- P : 0.035 %
- C : 0.20 %
- S : 0.030 %
- Mn : 1.40 %



ASTM A53

Applications

- Gas systems
- Water systems
- Industrial machinery
- Building constructions

Mechanical Properties

- Yield Strength (kgf/mm²) : 205 MPa
- Tensile Strength (kgf/mm²) : 330 MPa
- Pipe : 6-36 inch
- Outside Diameter : 168.30-914.00 mm
- Sch 10 : 168.30-914.00 mm
- Sch 20 : 168.30-914.00 mm
- Sch 30 : 219.10-914.00 mm
- Sch 40 : 7.10-19.10 mm

Chemical Composition

- P : 0.05 %
- S : 0.045 %
- Ca : 0.25 %
- Mn : 0.95 %
- Cu : 0.40 %
- Ni : 0.40 %
- Mo : 0.15 %
- Cr : 0.40 %
- V : 0.08 %
- Cu+Ni+Cr+
Mo+V : 1.00 %



EQUAL ANGLE



U-CHANNEL





Specification

- Hot rolled : JIS G 3101 SS400 (Mild steel)
- Length : 6.0 & 12.0 meters
- Metric size : 25 x 25 x 3 mm - 200 x 200 x 20 mm

Mechanical Properties

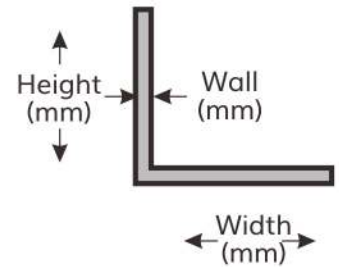
- Yield Strength (kgf/mm²) : 245 (min)
- Tensile Strength (kgf/mm²) : 400 - 4510
- Elongation (%) : 5 to 4 mm (17 min)

Applications

- Construction works
- Engineering structures
- Shipbuilding
- Industrial machinery

Chemical Composition

- P (max) : 0.05 %
- S (max) : 0.05 %



Specification

- Hot rolled : JIS G 3101 SS400
- Length : 6.0 & 12.0 meters
- Width : 80 - 200 mm
- Height : 45 - 75 mm
- Wall : 6 - 11.5 mm

Mechanical Properties

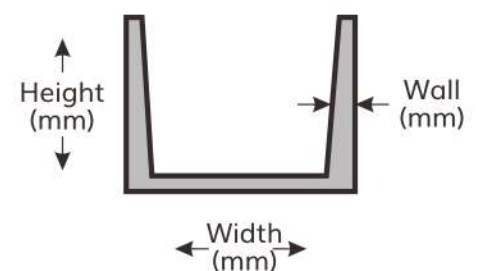
- Yield Strength (kgf/mm²) : 245 (min)
- Tensile Strength (kgf/mm²) : 400 - 4510
- Elongation (%) : 5 to 4 mm (17 min)

Applications

- Construction works
- Engineering structures
- Shipbuilding
- Industrial machinery

Chemical Composition

- P (max) : 0.05 %
- S (max) : 0.05 %



C-CHANNEL



FLAT BAR

STRUCTURAL & COSTRUCTIONAL STEEL





Specification

- Hot rolled : JIS G 3101 SS400
- Length : 6.0 & 12.0 meters
- Width : 75 - 200 mm
- Height : 45 - 75 mm
- Wall : 2 - 3 mm

Mechanical Properties

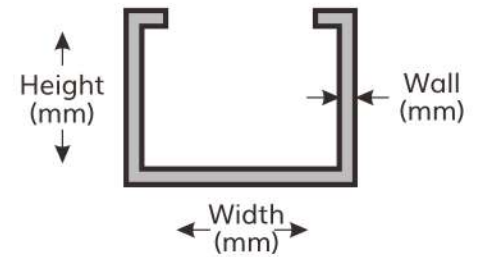
- Yield Strength (kgf/mm²) : 245 (min)
- Tensile Strength (kgf/mm²) : 400 - 4510
- Elongation (%) : 5 to 4 mm (17 min)

Applications

- Construction works
- Engineering structures
- Shipbuilding
- Industrial machinery

Chemical Composition

- P (max) : 0.05 %
- S (max) : 0.05 %

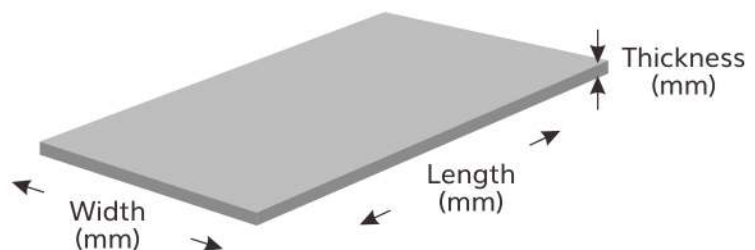


Specification

- Hot Rolled & Forged Bars
- Length 2.4 meters & 6.0 meters
- Thickness & width : 2 mm x 1" - 15 mm x 4"

Applications

- Construction works
- Engineering structures
- Shipbuilding
- Industrial machinery





WELDING ELECTRODES

KOBE STEEL

RB-26

Specification: JIS Z3211 D4313, AWS A.5.1. E6013

Diameter (mm): 2.6 , 3.2 , 4.0 , 5.0

Product description:

for thin carbon steel plates welding that use for car, train, and ship constructions. Upright and downward welding movement can be done by using electrode with 2.6 - 5.0 mm diameter.

Most suitable use for thin carbon steel plates welding because of its shallow penetration.

LB-26

Specification: JIS Z3211 D4316, AWS A.5.1 E7016

Diameter (mm): 2.6 , 3.2 , 4.0 , 5.0

Product description:

general carbon steel welding for heavy constructions such as ship, bridge, and pressure vessel. Great mechanical properties and radiography test for welding results.

LB-52

Specification: JIS Z3212 D5016, AWS A.5.1 E7016

Diameter (mm): 2.6 , 3.2 , 4.0 , 5.0

Product description:

can be used for carbon steel plates welding with high tensile strength of 50 kgf/mm² for ship, bridge, building, and pressure vessel constructions. Many welding advantages such as evenly weld arc, ease of crust disposal, great weld grooves, and ease of use in any positions.

LB-52 U

Specification: JIS Z3212 D4316, AWS A.5.1 E7016

Diameter (mm): 2.6 , 3.2 , 4.0

Product description:

one sided welding for pipe, use to connect butt joints that made of soft to high tensile carbon steel pipe up to 50 kgf/mm². Extremely stable weld arc for one sided welding with low current.

LB-52-18

Specification: JIS Z3212 D5016, AWS A.5.5 E7016

Diameter (mm): 2.6 , 3.2 , 4.0 , 5.0

Product description:

can be used for carbon steel plates welding with high tensile strength of 50 kgf/mm² for ship, bridge, building, and pressure vessel constructions. Great usage for one way or back and forth welding.

NIKKO STEEL

RD-260

Specification: JIS Z 3211 D4313, AWS A.5.1. E6013

Diameter (mm): 1.6, 2.0, 2.6, 3.2, 4.0, 5.0

Product description:

use for general construction welding (42 kgf/mm² class, ST 41 carbon steel).

Medium penetration, great weld grooves, light smoke, hard to loose. Suitable for ship, building, and automotive constructions.

Type of coating: high titania.

Yield point: 43.5 kgf/mm².

Tensile Strength: 52.1 kgf/mm².

Elongation: 28%.

Charpy impact value (°C): 8.8 kgf-m.

Welding position: all positions.

Current: AC, DC+, DC-.

RD-460

Specification: JIS Z3212 D5016, AWS A.5.1. E6013

Diameter (mm): 2.0, 2.6 , 3.2 , 4.0 , 5.0

Product description:

use for general construction welding (42 kgf/mm² class, ST 41 carbon steel).

Medium penetration and easy to use. Suitable for ship, building, pipe, tank, and agricultural machinery. Type of coating: high titania.

Yield point: 44.8 kgf/mm².

Tensile strength: 54 kgf/mm².

Elongation: 29%.

Charpy impact value (°C): 7.2 kgf-m.

Welding position: all positions and able to vertical down welding.

RD-360

Specification: JIS Z3212 D5016, AWS A.5.1. E7016

Diameter (mm): 2.6 , 3.2 , 4.0 , 5.0

Product description:

use for medium construction welding (50 kgf/mm² class, ST. 52 carbon steel). Great mechanical properties, radiography, and toughness, highly recommended for carbon steel, low alloy steel, oil tank, and pressure vessel welding.

Type of coating: low hydrogen.

Yield point: 61 kgf/mm².

Tensile strength: 71.3 kgf/mm².

Elongation: 25%.

Charpy impact value (30°C): 10.2 kgf-m.

Current: AC, DC+





OUR PROJECTS

1. One Galaxy Surabaya
2. Bandara Syamsudin Noor Banjarbaru Kalimantan Selatan
3. Bandara Kulon Progo Yogyakarta
4. Tunjungan Plasa V dan VI Surabaya
5. RS Mayapada Jakarta
6. Hotel Supermall Surabaya
7. Apartment Anderson Surabaya
8. Gress Mall Gresik
9. Pabrik Bintang Toedjoe Cikarang Jakarta
10. Hotel Tentrem Semarang
11. RSUD Badung Denpasar Bali
12. Appartment Avenue 88
13. Ciputra World Surabaya
14. Kampus Unisma Malang
15. RSI Unisma Malang



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