Aias Metal
Your Steel Provider

AIAS METAL A.Ş.

‘Your Steel Provider’

Flat Product Catalogue

Altınşehir Mahallesi 229.Sokak No:42 Nilüfer-BURSA / TÜRKİYE PK:16120

Aias Metal
Your Steel Provider

Content

About Us

Aias Metal founded in Turkey, more than a decade expetise in global steel industry with our partners aim to build up trustworthy steel supply for our valued customers and partners. Total closed area over 10,000 meter square in different locations. Our team is dedicated to reach all over the world steel needs by serving certified goods. Leading in satisfactory service supply approved by our customers and established long term cooperation.

Slitted Coils

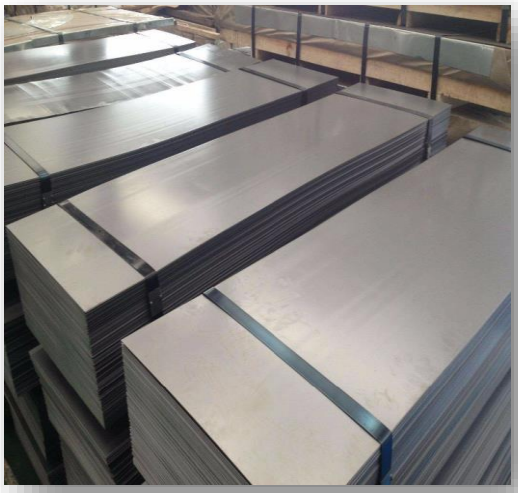
- Production flexibility
- Automated systems
- Narrow tolerances

Production Capabilities

Dimesions & Weights	
Maximum coil weight	25 Tons
Maximum coil Diameter	2,000 mm
Coil Inner Diameter	508/610 mm
Finished product diameter	1,900 mm
Strip Width	20 mm - 2000 mm
Thickness	
Slitting thickness	0,3 mm - 8,0 mm
Materials	
Hot rolled, pickled, oiled, unoiled	
Coated Products (+Z, +ZF, +ZA, +AZ, +AS, +GF)	
Cold rolled,oiled,unoiled	

Cut to Length

- High operating systems
- Tight process tolerances
- Fast operations on time



Production Capabilities

Dimesions & Weights	
Maximum coil weight	25 Tons
Maximum coil Diameter	2,100 mm
Sheet Width	200 mm - 2000 mm
Sheet Length	200 mm - 12000 mm
Thickness	
Thickness	0,3 mm - 12,0 mm
Materials	
Hot rolled, pickled, oiled, unoiled	
Coated Products (+Z, +ZF, +ZA, +AZ, +AS, +GF)	
Cold rolled,oiled,unoiled	

Profiles and Long Products

- Special length in profiles
- Beams & Profiles
- Pipes & Hollow Sections
- Deformed Bars and Cold Drawn Bars
- Merchant Bars
- Billets

Wire Products

- Wire Rods
- Deformed Bars in Coils
- Galvanized Wire
- Wire Mesh (Q/R Type)
- Nails

World-wide sourcing and transport

- International sourcing
- Door to door delivery
- Just in time delivery

Hot Rolled Steel

Typical uses consist of:
Structural sections, tanks, light poles, gas cylinders, racking and guardrails.

Hot rolled, unalloyed steel in compliance with DIN EN 10111

Grade designation		Mechanical properties							Chemical composition			
EN 10027-1	EN 10027-2	Tensile Strength Rm	Yield Strength ReL		Min. percent elongation at failure				Percentage by mass (Max.)			
		MPa	MPa		L0 = 80 mm				C	Mn	P	S
		max.	1 ≤ e < 2	2 ≤ e ≤ 11	1.0 <e< 1.5	1.5 ≤ e < 2	2 ≤ e < 3	3 ≤ e ≤ 11				
DD11	1,0332	440	170 – 360	170 – 340	22	23	24	28	0,12	0,6	0,045	0,045
DD12	1,0398	420	170 – 340	170 – 320	24	25	26	30	0,1	0,45	0,035	0,035
DD13	1,0335	400	170 – 330	170 – 310	27	28	29	33	0,08	0,4	0,03	0,03
DD14	1,0389	380	170 – 310	170 – 290	30	31	32	36	0,08	0,35	0,025	0,025

Hot rolled construction steel in compliance with DIN EN 10025-2

Grade designation		Mechanical properties										
EN 10027-1	EN 10027-2	Min. yield strength ReH MPa	Tensile strength Rm, MPa, nominal thickness mm					Min. percent elongation at failure				
		≤ 16	< 3	≥ 3 ≤ 100	> 100 ≤ 150	> 150 ≤ 250	> 250 ≤ 400	> 1 ≤ 1.5	> 1.5 ≤ 2.5	> 2 ≤ 2.5	> 2.5 ≤ 3	≥ 3 ≤ 40
S235JR	1,0038	235	360 - 510	360 - 510	350 - 500	340 - 490	–	18	19	20	21	26
S235J0	1,0114	235	360 - 510	360 - 510	350 - 500	340 - 490	–					
S235J2	1,0117	235	360 - 510	360 - 510	350 - 500	340 - 490	330 - 480	16	17	18	19	24
S275JR	1,0044	275	430 - 580	410 - 560	400 - 540	380 - 540	–	16	17	18	19	23
S275J0	1,0143	275	430 - 580	410 - 560	400 - 540	380 - 540	–					
S275J2	1,0145	275	430 - 580	410 - 560	400 - 540	380 - 540	380 - 540	14	15	16	17	21
S355JR	1,0045	355	510 - 680	470 - 630	450 - 600	450 - 600	–	15	16	17	18	22
S355J0	1,0553	355	510 - 680	470 - 630	450 - 600	450 - 600	–					
S355J2	1,0577	355	510 - 680	470 - 630	450 - 600	450 - 600	450 - 600					
S355K2	1,0596	355	510 - 680	470 - 630	450 - 600	450 - 600	450 - 600	13	14	15	16	20
S450J0	1,0590	450	–	550 - 720	530 - 700	–	–	–	–	–	–	17

Hot Rolled Steel

Hot rolled construction steel in compliance with DIN EN 10025-2											
Grade designation		Chemical composition									
EN 10027-1	EN 10027-2	Max. C in % for product thickness in mm			Si	Mn	P	S	N	Cu	Other
		≤ 16	> 16 ≤ 40	> 40	% max.	% max.	% max.	% max.	% max.	% max.	% max.
S235JR	1,0038	0,19	0,19	0,23	–	1,5	0,045	0,045	0,014	0,6	–
S235J0	1,0114	0,19	0,19	0,19	–	1,5	0,04	0,04	0,014	0,6	–
S235J2	1,0117	0,19	0,19	0,19	–	1,5	0,035	0,035	–	0,6	–
S275JR	1,0044	0,24	0,24	0,25	–	1,6	0,045	0,045	0,014	0,6	–
S275J0	1,0143	0,21	0,21	0,21	–	1,6	0,04	0,04	0,014	0,6	–
S275J2	1,0145	0,21	0,21	0,21	–	1,6	0,035	0,035	–	0,6	–
S355JR	1,0045	0,27	0,27	0,27	0,6	1,7	0,045	0,045	0,014	0,6	–
S355J0	1,0553	0,23	0,23	0,24	0,6	1,7	0,04	0,04	0,014	0,6	–
S355J2	1,0577	0,23	0,23	0,24	0,6	1,7	0,035	0,035	–	0,6	–
S355K2	1,0596	0,23	0,23	0,24	0,6	1,7	0,035	0,035	–	0,6	–
S450J0	1,0590	0,23	0,23	0,24	0,6	1,8	0,04	0,04	0,027	0,6	–

Hot rolled steel with high yield strengths in compliance with DIN EN 10149-2																
Grade designation		Mechanical properties				Chemical composition of thermo-mechanically rolled steel										
	Material number	Tensile strength	Yield strength	Elongation in % min		Percentage by mass (Max.)										
		Rm	Re min	< 3mm L0 = 80 mm	≥ 3 mm L0 = 5.65	C	Mn	Si	P	S	Almin	Nb	V	Ti	Mo	B
S315MC	1,0972	390 – 510	315	20	24	0,12	1,3	0,5	0,025	0,02	0,015	0,09	0,2	0,15	-	-
S355MC	1,0976	430 – 550	355	19	23	0,12	1,5	0,5	0,025	0,02	0,015	0,09	0,2	0,15	-	-
S420MC	1,0980	480 – 620	420	16	19	0,12	1,6	0,5	0,025	0,015	0,015	0,09	0,2	0,15	-	-
S460MC	1,0982	520 – 670	460	14	17	0,12	1,6	0,5	0,025	0,015	0,015	0,09	0,2	0,15	-	-
S500MC	1,0984	550 – 700	500	12	14	0,12	1,7	0,5	0,025	0,015	0,015	0,09	0,2	0,15	-	-
S550MC	1,0986	600 – 760	550	12	14	0,12	1,8	0,5	0,025	0,015	0,015	0,09	0,2	0,15	-	-
S600MC	1,8969	650 – 820	600	11	13	0,12	1,9	0,5	0,025	0,015	0,015	0,09	0,2	0,22	0,5	0,005
S650MC	1,8976	700 – 880	650	10	12	0,12	2	0,6	0,025	0,015	0,015	0,09	0,2	0,22	0,5	0,005
S700MC	1,8974	750 – 950	700	10	12	0,12	2,1	0,6	0,025	0,015	0,015	0,09	0,2	0,22	0,5	0,005

Hot Rolled Steel

Hot rolled steel for pressure vessels in compliance with DIN EN 10028/10120/10207													
Grade designation		Mechanical properties			Chemical composition								
		Yield Strength Rm Mpa Min.	Tensile Strength ReL Mpa Between	Min. percent elongation at failure -	C % max.	Si % max.	Mn % max.	P % max.	S % max.	Mo % max.	Cu % max.	Al % min.	Ti % max.
P245NB	1,0111	245	360-450	26	0,16	0,25	0,30	0,025	0,015	-	-	0,020	0,030
P265NB	1,0423	265	410-500	24	0,19	0,25	0,40	0,025	0,015	-	-	0,020	0,030
P310NB	1,0437	310	460-550	21	0,20	0,50	0,70	0,025	0,015	-	-	0,020	0,030
P355NB	1,0557	355	510-620	19	0,20	0,50	0,70	0,025	0,015	-	-	0,020	0,030
P235S	1,0112	235	360-480	19	0,16	0,35	0,4-1,2	0,025	0,025	-	-	-	-
P265S	1,0130	265	410-530	16	0,20	0,35	0,5-1,5	0,025	0,025	-	-	-	-
P275SL	1,1100	275	390-510	18	0,16	0,40	0,5-1,5	0,025	0,02	-	-	-	-
P235GH	1,0345	235	360-480	24	0,16	0,35	0,60-1,20	0,025	0,01	0,08	0,30	0,020	0,030
P265GH	1,0425	265	410-530	22	0,20	0,40	0,80-1,40	0,025	0,010	0,08	0,30	0,020	0,030
P295GH	1,0481	295	460-580	21	0,08-0,20	0,40	0,90-1,50	0,025	0,010	0,08	0,30	0,020	0,030
P355GH	1,0473	355	510-650	20	0,10-0,22	0,60	1,10-1,70	0,025	0,010	0,08	0,30	0,020	0,030
P275NH	1,0487	275	390-510	24	0,16	0,40	0,80-1,50	0,025	0,010	0,08	0,30	0,020	0,030
P275NL1	1,0488	275	390-510	24	0,16	0,40	0,80-1,50	0,025	0,008	0,08	0,30	0,020	0,030
P355N	1,0562	355	490-630	22	0,18	0,50	1,10-1,70	0,025	0,010	0,08	0,30	0,020	0,030
P355NH	1,0565	355	490-630	22	0,18	0,50	1,10-1,70	0,025	0,010	0,08	0,30	0,020	0,030
P355NL	1,0566	355	490-630	22	0,18	0,50	1,10-1,70	0,025	0,008	0,08	0,30	0,020	0,030
P420M	1,8824	420	500-660	19	0,16	0,50	1,70	0,025	0,008	0,20	-	0,020	0,050
P420ML1	1,8835	420	500-660	19	0,16	0,50	1,70	0,020	0,010	0,20	-	0,020	0,050

Hot Rolled Pickled & Oiled Steel

Hot Rolled Pickled and Oiled steel is ideal for welding finishes and reinforcements.

Typical uses consist of:
- Structural sections
- Tanks
- Light poles
- Gas cylinders
- Racking
- Shelving
- Guardrails
- Tubing
- Simple pressings
- Hidden appliance panels

Thermo-mechanically rolled steel					
Grade designation		Mechanical properties			
	Material number	Tensile strength	Yield strength	Elongation in % min	
		Rm	Re min	< 3mm L0 = 80 mm	≥ 3 mm L0 = 5.65
S315MC	1,0972	390 – 510	315	20	24
S355MC	1,0976	430 – 550	355	19	23
S420MC	1,0980	480 – 620	420	16	19
S460MC	1,0982	520 – 670	460	14	17
S500MC	1,0984	550 – 700	500	12	14
S550MC	1,0986	600 – 760	550	12	14
S600MC	1,8969	650 – 820	600	11	13
S650MC	1,8976	700 – 880	650	10	12
S700MC	1,8974	750 – 950	700	10	12

Hot rolled, unalloyed steel in compliance with DIN EN 10111								
Grade designation		Mechanical properties						
EN 10027-1	EN 10027-2	Tensile Strength Rm	Yield Strength ReL		Min. percent elongation at failure			
		MPa	MPa		L0 = 80 mm			
		max.	1 ≤ e < 2	2 ≤ e ≤ 11	1.0 < e < 1.5	1.5 ≤ e < 2	2 ≤ e < 3	3 ≤ e ≤ 11
DD11	1,0332	440	170 – 360	170 – 340	22	23	24	28
DD12	1,0398	420	170 – 340	170 – 320	24	25	26	30
DD13	1,0335	400	170 – 330	170 – 310	27	28	29	33
DD14	1,0389	380	170 – 310	170 – 290	30	31	32	36

EN 10027-1	EN 10027-2	Min. yield strength ReH MPa	Tensile strength Rm, MPa, nominal thickness mm				
		≤ 16	< 3	≥ 3	> 100	> 150	> 250
				≥ 100	≤ 150	≤ 250	≤ 400
S235JR	1,0038	235	360 - 510	360 - 510	350 - 500	340 - 490	–
S235J0	1,0114	235	360 - 510	360 - 510	350 - 500	340 - 490	–
S235J2	1,0117	235	360 - 510	360 - 510	350 - 500	340 - 490	330 - 480
S275JR	1,0044	275	430 - 580	410 - 560	400 - 540	380 - 540	–
S275J0	1,0143	275	430 - 580	410 - 560	400 - 540	380 - 540	–
S275J2	1,0145	275	430 - 580	410 - 560	400 - 540	380 - 540	380 - 540
S355JR	1,0045	355	510 - 680	470 - 630	450 - 600	450 - 600	–
S355J0	1,0553	355	510 - 680	470 - 630	450 - 600	450 - 600	–
S355J2	1,0577	355	510 - 680	470 - 630	450 - 600	450 - 600	450 - 600
S355K2	1,0596	355	510 - 680	470 - 630	450 - 600	450 - 600	450 - 600
S450J0	1,0590	450	–	550 - 720	530 - 700	–	–

Cold Rolled Steel

Typical applications are
•Non-exposed panels
•Drawn parts
•Pressings for the automotive industry
•Automotive components and seat parts
•Office furniture
•Shelving

Cold rolled, unalloyed steel in compliance with DIN EN 10130								
Grade designation		Mechanical properties			Chemical composition			
EN 10027-1	EN 10027-2	Yield Strength Rm	Tensile Strength ReL	Min. percent elongation at failure	Percentage by mass (Max.)			
		MPa	MPa	L^0 = 80 mm	C	Mn	P	S
		max.	Between					
DC01	1,0330	280	270 - 410	28	0,12	0,6	0,045	0,045
DC03	1,0347	240	270 - 370	34	0,10	0,45	0,035	0,035
DC04	1,0338	210	270 - 350	38	0,08	0,4	0,03	0,03
DC05	1,0312	180	270 - 330	40	0,06	0,35	0,025	0,025
DC06	1,0873	170	270 - 330	41	0,02	0,25	0,02	0,02
DC07	1,0898	150	250 - 310	44	0,01	0,2	0,02	0,02

Cold rolled steel for enamelling in compliance with DIN EN 10209								
Grade designation		Mechanical properties			Chemical composition			
EN 10027-1	EN 10027-2	Yield Strength Rm	Tensile Strength ReL	Min. percent elongation at failure	Percentage by mass (Max.)			
		MPa	MPa	L^0 = 80 mm	C	Mn	P	S
		max.	Between					
DC01EK	1,0390	270	270 - 390	30	0,08	0,50	0,030	0,050
DC04 EK	1,0392	220	270 - 350	36	0,08	0,50	0,030	0,050
DC06 EK	1,0869	190	270 - 350	38	0,02	0,50	0,030	0,050
DC03 ED	1,0399	240	270 - 370	34	-	0,50	0,030	0,050
DC04 ED	1,0394	210	270 - 350	38	-	0,50	0,030	0,050
DC06 ED	1,0872	190	250 - 350	38	0,01	0,50	0,030	0,050

Cold Rolled Steel

Cold rolled steel with high yield strengths in compliance with DIN EN 10268											
Grade designation		Mechanical properties			Chemical composition						
Quality Code	Material Number	Yield Strength Rm	Tensile Strength ReL	Min. percent elongation at failure	Percentage by mass (Max.)						
		MPa	MPa	L^0 = 80 mm	C	Si	Mn	P	S	Almin	Ti
		Between	Between								
HC180Y	1,0922	180 – 230	340 – 400	36	0,01	0,30	0,70	0,060	0,025	0,010	0,120
HC180P	1,0342	180 – 230	280 – 360	34	0,05	0,40	0,60	0,080	0,025	0,015	-
HC180B	1,0395	180 – 230	300 – 360	34	0,05	0,50	0,70	0,060	0,025	0,015	-
HC220Y	1,0925	220 – 270	350 – 420	34	0,01	0,30	0,90	0,080	0,025	0,010	0,120
HC220I	1,0346	220 – 270	300 – 380	34	0,07	0,50	0,50	0,050	0,025	0,015	0,050
HC220P	1,0397	220 – 270	320 – 400	32	0,07	0,50	0,70	0,080	0,025	0,015	-
HC220B	1,0396	220 – 270	320 – 400	32	0,06	0,50	0,70	0,080	0,025	0,015	-
HC260Y	1,0928	260 – 320	380 – 440	32	0,01	0,30	1,60	0,100	0,025	0,010	0,120
HC260I	1,0349	260 – 310	320 – 400	32	0,07	0,50	0,50	0,050	0,025	0,015	0,050
HC260P	1,0417	260 – 320	360 – 440	29	0,08	0,50	0,70	0,100	0,025	0,015	-
HC260B	1,0400	260 – 320	360 – 440	29	0,08	0,50	0,70	0,100	0,025	0,015	-
HC260LA	1,0480	260 – 330	350 – 430	27	0,10	0,50	0,60	0,025	0,025	0,015	0,150
HC300I	1,0447	300 – 350	340 – 440	30	0,08	0,50	0,70	0,080	0,025	0,015	0,050
HC300P	1,0448	300 – 360	400 – 480	26	0,10	0,50	0,70	0,120	0,025	0,015	-
HC300B	1,0444	300 – 360	400 – 480	26	0,10	0,50	0,70	0,120	0,025	0,015	-
HC300LA	1,0489	300 – 380	380 – 480	24	0,10	0,50	1,00	0,025	0,025	0,015	0,150
HC340LA	1,0548	340 – 420	410 – 510	22	0,10	0,50	1,10	0,025	0,025	0,015	0,150
HC380LA	1,0550	380 – 480	440 – 560	20	0,10	0,50	1,60	0,025	0,025	0,015	0,150
HC420LA	1,0556	420 – 520	470 – 590	18	0,10	0,50	1,60	0,025	0,025	0,015	0,150

Coated Steel

Type of coating
Z = Standard zinc-plating
ZF = Zinc-iron alloy
ZA = Zinc-aluminium coating (Galfan),
AZ = Aluminium-zinc coating (Galvalume)
AS = Aluminium-silicon coating
ZM= Zinc - Magnelis

Hot-dip galvanised steel in compliance with DIN EN 10346											
Grade designation			Mechanical properties			Chemical composition					
Quality Code	Material Number	Coating Code	Yield Strength Rm	Tensile Strength ReL	Min. percent elongation at failure	Percentage by mass (Max.)					
			MPa	MPa	L0 = 80 mm	C	Si	Mn	P	S	Ti
			Between	Between							
DX51D	1,0226	+Z, +ZF, +ZA, +AZ, +AS	–	270 - 500	22	0,18	0,05	1,20	0,12	0,045	0,30
DX52D	1,0350	+Z, +ZF, +ZA, +AZ, +AS	140 - 300	270 - 420	26	0,12	0,05	0,60	0,10	0,045	0,30
DX53D	1,0355	+Z, +ZF, +ZA, +AZ, +AS	140 - 260	270 - 380	30	0,12	0,05	0,60	0,10	0,045	0,30
DX54D	1,0306	+Z, +ZA	120 - 220	260 - 350	36	0,12	0,05	0,60	0,10	0,045	0,30
DX54D	1,0306	+ ZF	120 - 220	260 - 350	34	0,12	0,05	0,60	0,10	0,045	0,30
DX54D	1,0306	+ AZ	120 - 220	260 - 350	36	0,12	0,05	0,60	0,10	0,045	0,30
DX54D	1,0306	+ AS	120 - 220	260 - 350	34	0,12	0,05	0,60	0,10	0,045	0,30
DX55D	1,0309	+ AS	140 - 240	270 - 370	30	0,12	0,05	0,60	0,10	0,045	0,30
DX56D	1,0322	+Z, +ZA	120 - 180	260 - 350	39	0,12	0,05	0,60	0,10	0,045	0,30
DX56D	1,0322	+ ZF	120 - 180	260 - 350	37	0,12	0,05	0,60	0,10	0,045	0,30
DX56D	1,0322	+ AS	120 - 180	260 - 350	39	0,12	0,05	0,60	0,10	0,045	0,30
DX57D	1,0853	+Z, +ZA	120 - 170	260 - 350	41	0,12	0,05	0,60	0,10	0,045	0,30
DX57D	1,0853	+ ZF	120 - 170	260 - 350	39	0,12	0,05	0,60	0,10	0,045	0,30
DX57D	1,0853	+ AS	120 - 170	260 - 350	41	0,12	0,05	0,60	0,10	0,045	0,30

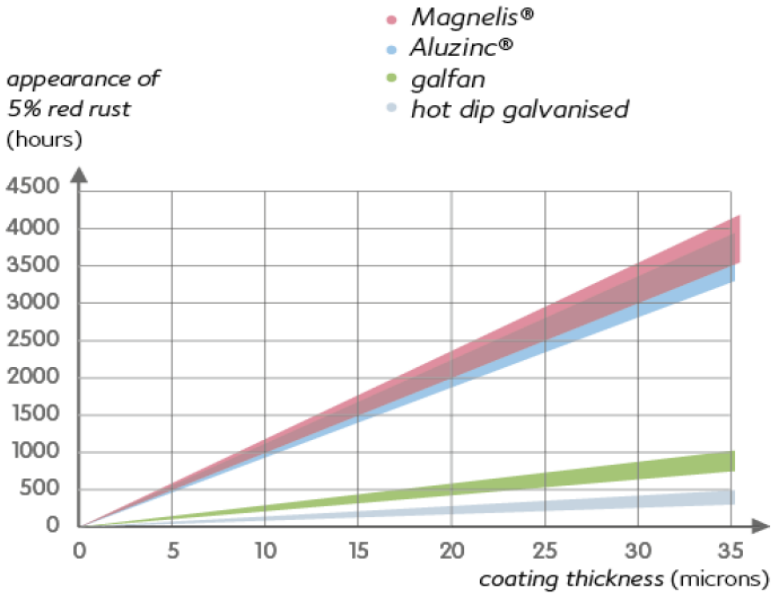
Coated Steel

Hot-dip galvanised construction steel in compliance with DIN EN 10346										
Grade designation			Mechanical properties			Chemical composition				
Quality Code	Material Number	Coating Code	Yield Strength Rm	Tensile Strength ReL	Min. percent elongation at failure	Percentage by mass (Max.)				
			MPa	MPa	L_0 = 80 mm	C	Si	Mn	P	S
			max.	Between						
S220GD	1,0241	+Z, +ZF, +ZA, +AZ	220	300	20	0,20	0,60	1,70	0,10	0,045
S250GD	1,0242	+Z, +ZF, +ZA, +AZ,	250	330	19	0,20	0,60	1,70	0,10	0,045
S280GD	1,0244	+Z, +ZF, +ZA, +AZ,	280	360	18	0,20	0,60	1,70	0,10	0,045
S320GD	1,0250	+Z, +ZF, +ZA, +AZ,	320	390	17	0,20	0,60	1,70	0,10	0,045
S350GD	1,0529	+Z, +ZF, +ZA, +AZ,	350	420	16	0,20	0,60	1,70	0,10	0,045
S350GD	1,0531	+Z, +ZF, +ZA, +AZ	550	560	–	0,20	0,60	1,70	0,10	0,045

Hot-dip galvanised construction steel in compliance with DIN EN 10346					
Grade designation			Mechanical properties		
Quality Code	Material Number	Coating Code	Yield Strength Rm	Tensile Strength ReL	Min. percent elongation at failure
			MPa	MPa	L0 = 80 mm
			Between	Between	
HX260LAD	1,0929	+Z, +ZF, +ZA, +AZ, +AS	260 – 330	350 – 430	26
HX300LAD	1,0932	+Z, +ZF, +ZA, +AZ, +AS	300 - 380	380 – 480	23
HX340LAD	1,0933	+Z, +ZF, +ZA, +AZ, +AS	340 – 420	410 – 510	21
HX380LAD	1,0934	+Z, +ZF, +ZA, +AZ, +AS	380 – 480	440 – 560	19
HX420LAD	1,0935	+Z, +ZF, +ZA, +AZ, +AS	420 – 520	470 – 590	17
HX460LAD	1,0990	+Z, +ZF, +ZA, +AZ, +AS	460 – 560	500 – 640	15
HX500LAD	1,0991	+Z, +ZF, +ZA, +AZ, +AS	500 – 620	530 – 690	13

Coated Steel

Hot-dip galvanised construction steel in compliance with DIN EN 10346									
Grade designation			Chemical composition						
Quality Code	Material Number	Coating Code	Percentage by mass (Max.)						
			C	Si	Mn	P	S	Al	Ti	Nb
HX260LAD	1,0929	+Z, +ZF, +ZA, +AZ, +AS	0,11	0,50	0,60	0,03	0,03	≥ 0.015	0,12	0,090
HX300LAD	1,0932	+Z, +ZF, +ZA, +AZ, +AS	0,11	0,50	1,00	0,03	0,03	≤ 0.1	0,15	0,090
HX340LAD	1,0933	+Z, +ZF, +ZA, +AZ, +AS	0,11	0,50	1,00	0,03	0,03	≥ 0.015	0,15	0,090
HX380LAD	1,0934	+Z, +ZF, +ZA, +AZ, +AS	0,11	0,50	1,40	0,03	0,03	≥ 0.015	0,15	0,090
HX420LAD	1,0935	+Z, +ZF, +ZA, +AZ, +AS	0,11	0,50	1,40	0,03	0,03	≥ 0.015	0,15	0,090
HX460LAD	1,0990	+Z, +ZF, +ZA, +AZ, +AS	0,15	0,50	1,70	0,03	0,03	≥ 0.015	0,15	0,090
HX500LAD	1,0991	+Z, +ZF, +ZA, +AZ, +AS	0,15	0,50	1,70	0,03	0,03	≥ 0.015	0,15	0,090



Coated Steel

Hot-dip galvanised, electrolytically galvanised and uncoated steel in compliance with DIN EN 10346				
Grade designation		Mechanical properties		
Quality Code	Material Number	Yield Strength Rm	Tensile Strength ReL	Min. percent elongation at failure
		MPa	MPa	L0 = 80 mm
		Between	Between	
Dual Phase Steel				
HCT450X	1,0937	260 – 340	450	27
HCT500X	1,0939	300 – 380	500	23
HCT600X	1,0941	340 – 420	600	20
HCT780X	1,0943	450 – 560	780	14
HCT980X	1,0944	600 – 750	980	10
Trip Steel				
HCT690T	1,0947	430 – 550	690	23
HCT780T	1,0948	470 – 600	780	21
CP Steel				
HCT600C	1,0953	350 – 500	600	16
HCT780C	1,0954	500 – 700	780	10
HCT980C	1,0955	700 – 900	980	7
FB Steel				
HDT450F	1,0961	320 – 420	450	23
HDT560F	1,0959	460 – 570	560	16
DP Steel				
HDT580X	1,0936	330 – 460	580	19
CP Steel				
HDT750C	1,0956	620 – 760	750	10
HDT780C	1,0957	680 – 830	780	10
HDT950C	1,0958	720 – 920	950	9
MS Steel				
HDT1200M	1,0965	900 – 1,150	1200	5

Coated Steel

Hot-dip galvanised construction steel in compliance with DIN EN 10346												
Grade designation			Chemical composition									
Quality Code	Material Number	Coating Code	Percentage by mass (Max.)									
			C	Si	Mn	P	S	Al	Cr+Mo	Nb+Ti	V	B
FB Steel												
HDT450F	1,0961	+Z,+ZF	0,18	0,50	1,20	0,03	0,01	≥0.015	0,30	0,05	0,15	0,005
HDT560F	1,0959	+Z,+ZF	0,18	0,50	1,80	0,03	0,01	≥0.015	0,30	0,15	0,15	0,005
DP Steel												
HCT450X	1,0937	+Z,+ZF,+ZA	0,14	0,80	2,00	0,08	0,02	≤2.00	1,00	0,15	0,20	0,005
HCT500X	1,0939	+Z,+ZF,+ZA	0,14	0,80	2,00	0,08	0,02	≤2.00	1,00	0,15	0,20	0,005
HCT600X	1,0941	+Z,+ZF,+ZA	0,17	0,80	2,20	0,08	0,02	≤2.00	1,00	0,15	0,20	0,005
HDT580X	1,0936	+Z,+ZF	0,17	0,80	2,20	0,08	0,02	≤2.00	1,00	0,15	0,20	0,005
HCT780X	1,0943	+Z,+ZF,+ZA	0,18	0,80	2,50	0,08	0,02	≤2.00	1,00	0,15	0,20	0,005
HCT980X	1,0944	+Z,+ZF,+ZA	0,23	0,80	2,50	0,08	0,02	≤2.00	1,00	0,15	0,20	0,005
TRIP Steel												
HCT690T	1,0947	+Z,+ZF,+ZA	0,32	2,20	2,50	0,12	0,02	≤2.00	0,60	0,20	0,20	0,005
HCT780T	1,0948	+Z,+ZF,+ZA	0,32	2,20	2,50	0,12	0,02	≤2.00	0,60	0,20	0,20	0,005
CP Steel												
HCT600C	1,0953	+Z,+ZF,+ZA	0,18	0,80	2,20	0,08	0,02	≤2.00	1,00	0,15	0,20	0,005
HDT750C	1,0956	+Z,+ZF	0,18	0,80	2,20	0,08	0,02	≤2.00	1,00	0,15	0,20	0,005
HCT780C	1,0954	+Z,+ZF,+ZA	0,18	0,80	2,20	0,08	0,02	≤2.00	1,00	0,15	0,20	0,005
HDT780C	1,0957	+Z,+ZF	0,18	0,80	2,20	0,08	0,02	≤2.00	1,00	0,15	0,20	0,005
HDT950C	1,0958	+Z,+ZF	0,25	0,80	2,20	0,08	0,02	≤2.00	1,20	0,15	0,20	0,005
HCT980C	1,0955	+Z,+ZF,+ZA	0,25	0,80	2,20	0,08	0,02	≤2.00	1,20	0,15	0,22	0,005
MS Steel												
HDT1200M	1,0965	+Z,+ZF	0,25	0,80	2,00	0,06	0,02	≤2.00	1,20	0,15	0,22	0,005

Aluminized Steel

Aluminized (Alu-Si) steel in compliance with DIN EN 10346											
Grade designation			Mechanical properties			Chemical composition					
Quality Code	Material Number	Coating Code	Yield Strength Rm	Tensile Strength ReL	Min. percent elongation at failure	Percentage by mass (Max.)					
			MPa	MPa	L0 = 80 mm	C	Si	Mn	P	S	Ti
			max.	Between							
DX51D	1,0226	+ AS	–	270 - 500	22	0,12	0,05	0,60	0,10	0,045	0,30
DX52D	1,0350	+ AS	140 - 300	270 - 420	26	0,12	0,05	0,60	0,10	0,045	0,30
DX53D	1,0355	+ AS	140 - 260	270 - 380	30	0,12	0,05	0,60	0,10	0,045	0,30
DX54D	1,0306	+ AS	120 - 220	260 - 350	36	0,12	0,05	0,60	0,10	0,045	0,30
DX55D	1,0309	+ AS	120 - 220	260 - 350	34	0,12	0,05	0,60	0,10	0,045	0,30
DX56D	1,0322	+ AS	120 - 220	260 - 350	36	0,12	0,05	0,60	0,10	0,045	0,30
S220GD	1,0241	+ AS	220	300	20	0,20	0,60	1,70	0,10	0,045	-
S250GD	1,0242	+ AS	250	330	19	0,20	0,60	1,70	0,10	0,045	-
S280GD	1,0244	+ AS	280	360	18	0,20	0,60	1,70	0,10	0,045	-
S320GD	1,0250	+ AS	320	390	17	0,20	0,60	1,70	0,10	0,045	-
S350GD	1,0529	+ AS	350	420	16	0,20	0,60	1,70	0,10	0,045	-
HX260LAD	1,0929	+ AS	260 – 330	350 – 430	26	0,12	0,50	0,60	0,03	0,03	0,120
HX300LAD	1,0932	+ AS	300 - 380	380 – 480	23	0,11	0,50	1,00	0,03	0,03	0,15
HX340LAD	1,0933	+ AS	340 – 420	410 – 510	21	0,11	0,50	1,00	0,03	0,03	0,15
HX380LAD	1,0934	+ AS	380 – 480	440 – 560	19	0,11	0,50	1,40	0,03	0,03	0,15
HX420LAD	1,0935	+ AS	420 – 520	470 – 590	17	0,11	0,50	1,40	0,03	0,03	0,15

Electro-Galvanized Steel

Electrolytically galvanized steel in compliance with DIN EN 10152									
Grade designation		Mechanical properties			Chemical composition				
Quality Code	Material Number	Yield Strength Rm	Tensile Strength ReL	Min. percent elongation at failure	Percentage by mass (Max.)				
		MPa	MPa	L0 = 80 mm	C	P	S	Mn	Ti
		max.	Between						
DC01	1,0390	140 –280	270 - 410	28	0,12	0,05	0,045	0,600	-
DC03	1,0392	140 – 240	270 - 370	34	0,10	0,04	0,035	0,450	-
DC04	1,0869	140 – 220	270 - 350	37	0,08	0,03	0,030	0,400	-
DC05	1,0399	140 – 200	270 - 330	39	0,06	0,03	0,025	0,350	-
DC06	1,0394	130 – 180	270 - 350	41	0,02	0,02	0,020	0,250	0,3
DC07	1,0872	110 – 160	250 - 310	43	0,01	0,02	0,020	0,200	0.2

Zinc coatings of electrolytically galvanized steel strip and sheet steel					
Coating		Nominal zinc coating per side		Minimum value of coating (single surface sample)	
		Thickness in µm	Weight in g/m2	Thickness in µm	Weight in g/m2
Dual-side	ZE 25/25	2.5/2.5	18/16	1.7/1.7	12/12
	ZE 50/50	5/5	36/36	4.1/4.1	29/29
	ZE 75/75	7.5/7.5	54/54	6.6/6.6	47/47
	ZE 100/100	10/10	72/72	9.1/9.1	65/65
Single-side	ZE 25/0	2.5/0	18/0	1.7/0	12/0
	ZE 50/0	5/0	36/0	4.1/0	29/0
	ZE 75/0	7.5/0	54/0	6.6/0	47/0
	ZE 100/0	10/0	72/0	9.1/0	65/0
Various	ZE 50/25	5/2.5	36/18	4.1/1.7	29/12
	ZE 75/25	7.5/2.5	54/18	6.5/1.7	47/12
	ZE 75/50	7.5/5	54/36	6.6/4.9	47/29

Coated Steel Applications

Coated steel applications								
Application for indoor buildings, general industry and domestic appliances	Surface protection	Protection	Aspect durability	Aspect	Coating	Suitability for electrical	Temperature	
	(unpainted)	(painted)	(unpainted)	(post-painted)	formability	resistance welding	resistance	
Electro-Galvanized steel	Good	Excellent	Very Good	Excellent	Very Good	Excellent	Good	
Hot dip galvanized steel	Good	Excellent	Very Good	Very Good	Very Good	Very Good	Good	
Galfan (Zinc-Aluminium) steel	Very Good	Excellent	Good	Very Good	Excellent	Good	Good	
Magnelis (Zinc-Aluminimum-Magnesium) steel	Excellent	Excellent	Excellent	Excellent	Excellent			
Alu-Zinc (Aluminium-Zinc) steel	Excellent	Excellent	Excellent	Good	Very Good	Good	Very Good	
Alu-Si (Aluminium-Silicon)	Excellent	Excellent	Very Good	Good	Good	Good, but with reservations	Excellent	
Alupur (Aluminium)	Not Suitable	Not Suitable	Not Suitable	Not Suitable	Not Suitable	Not Suitable	Not Suitable	
Application for outdoor buildings	Surface	Edge and scratch	Outdoor exposure	Aspect durability	Abrasion resistance	Aptitude to bending	Temperature	Solar heat
	protection	protection	performance	(unpainted)	(unpainted)	and profiling	resistance	reflectivity
Electro-Galvanized steel	Not Suitable	Not Suitable	Not Suitable	Not Suitable	Not Suitable	Not Suitable	Not Suitable	Not Suitable
Hot dip galvanized steel	Good	Very Good	Good	Very Good	Good, but with reservations	Very Good	Good	Good
Galfan (Zinc-Aluminium) steel	Very Good	Excellent	Very Good	Very Good	Good	Excellent	Good	Good
Magnelis (Zinc-Aluminimum-Magnesium) steel	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent		
Alu-Zinc (Aluminium-Zinc) steel	Excellent	Good	Excellent	Excellent	Very Good	Very Good	Very Good	Very Good
Alu-Si (Aluminium-Silicon)	Not Suitable	Not Suitable	Not Suitable	Not Suitable	Not Suitable	Not Suitable	Not Suitable	Not Suitable
Alupur (Aluminium)	Excellent	Good	Excellent	Excellent	Excellent	Good	Excellent	Excellent

Quality Key

Hot rolled in compliance with DIN EN 10111	
DD11	
D	Flat products for cold forming
D	Hot rolled steel
11	Grade code
Hot rolled in compliance with DIN EN 10025	
S 235 JR	
S	Construction (structural) steel
235	Minimum yield strength
JR	Grade group code
Hot rolled in compliance with DIN EN 10149	
S260NC / MC	
S	Construction (structural) steel
260	Minimum yield strength
NC	Normalising rolled
MC	Thermo-mechanically rolled
Cold rolled in compliance with DIN EN 10130	
DC01	
D	Flat products for cold forming
C	Cold rolled steel
01	Grade code
Cold rolled in compliance with DIN EN 10209	
DC 04 EK / ED	
D	Flat products for cold forming
C	Cold rolled steel
04	Grade code
EK	Conventional enamelling
ED	Direct enamelling
Cold rolled in compliance with DIN EN 10268	
HC380LA	
H	High-strength steel for cold forming
C	Cold rolled steel
380	Minimum yield strength
LA	Denotes microalloyed steel
Electrolytic zinc-plated	
DC01+ZE 25/25-APC	
D	Flat products for cold forming
C	Cold rolled steel
1	Grade code
ZE	Electrolytically galvanised
ZN	Zinc-nickel
25/25	2.5 µm each side
A	Substrate surface type
PC	Phosphatised and chemically passivated

Hot-dip galvanised in compliance with DIN EN 10346	
DX51D+Z275-N-A-C	
D	Flat products for cold forming
X	Cold or hot rolled not specified
51	Grade code
D	Hot-dip galvanised
Z	Zinc-plated
275	Coating weight, two sides
N	Typical zinc spangle
A	Typical surface
C	Chemically passivated
Hot-dip galvanised in compliance with DIN EN 10346	
S250GD+Z275-N-A-C	
S	Construction (structural) steel
250	Minimum yield strength
GD	Hot-dip galvanised
Z	Zinc-plated
275	Coating weight, two sides
N	Typical zinc spangle
A	Typical surface
C	Chemically passivated
Hot-dip galvanised in compliance with DIN EN 10346	
HX300LAD+Z140-M-B-O	
H	Flat products made of high-strength steel for cold forming
X	Hot or cold rolled steel
300	Minimum yield strength
LA	Denotes microalloyed steel
D	Hot-dip galvanised
Z	Zinc-plated
140	Coating weight, two sides
M	Small zinc spangle
B	Enhanced surface
O	Oiled
Hot-dip galvanised in compliance with DIN EN 10346	
HCT600XD+Z140-M-B-O	
H	Flat products made of high-strength steel for cold forming
C	Cold rolled
T	Tensile strength
600	Minimum tensile strength
X	Dual-phase
D	Hot-dip galvanised
Z	Zinc-plated
140	Coating weight, two sides
M	Small zinc spangle
B	Enhanced surface
O	Oiled

European Norm	Italian UNI	German DIN	ASTM - SAE	French NF	Japan JIS
C10	C10	CK10	SAE1010	-	-
C12	C12	CK12	SAE1012	-	-
C15	C15	CK15	SAE1015	-	-
C20	C20	CK20	SAE1020	-	-
C30	-		SAE1030	-	-
-	-	28Mn6	SAE1527	-	-
S235JR	FE360B	ST37-2	SAE1015	E24-2	SM400A
S275JR	FE430B	ST44-2	SAE1020	E28-2	-
E295	FEE290	ST50-2	-	A50-2	-
E355	FEE355KGTM	STE355TM	A572 Gr. C	E355R	-
S235JR(Cu)	FE360B(Cu)	ST37-2(Cu)	SAE1015(Cu)	E24-2(Cu)	SM400A(Cu)
DD12	-	STW23	-	-	-
S315MC	FEE315	QSTE300TM	045XLK	E315D	SPFH490
S355MC	FEE355	QSTE360TM	GR50	E355D	SPFH540
S420MC	FEE420	QSTE420TM	GR60	E420D	SPFH590
S460MC	FEE460	QSTE460TM	GR65	E445D	-
S500MC	FEE490	QSTE500TM	GR70	E490D	-
C35E	C35	CK35	SAE1035	XC38	S35C
C40E	C40	CK40	SAE1040	XC42	S40C
C45E	C45	CK45	SAE1045	XC48	S45C
C50	C50	CK50	SAE1050	-	S50C
C60E	C60	CK60	SAE1060	-	S58C
C70E	C70	CK70	SAE1070	XC70	S70C
C80E	C80	CK80	SAE1080	XC80	S80C
S355J0	Fe510C	St52-3U	-	E36-3	SS490B
E335	FEE690	ST70-2	-	A70-2	
20MnB5	21B3	22B2	-	20MnB5RR	10B21/15B21
30MnB5	-	28B2	-	30MnB5RR	15B30
-	-	-	SAE1006	-	-
-		-	SAE1018	-	-
S235J2		ST37-3N		E24-4	-
S355JR	FE510B	-	A633 Gr. A,C,D	E36-2	SM490A
S355J0	-	ST52-3N	-	E36-3	-
DD11	FEP11	STW22	CS	1C	SPHD
DD12	FEP12	STW23	-	-	-
DD13	FEP13	STW24	DS	3C	SPHE
S235J2	-	-	A36		
S355J2	-	-	-	A52FP	SM490YA
DD11(Cu)	FEP11(Cu)	STW22(Cu)	CS(Cu)	1C(Cu)	SPHD(Cu)
S355J2(Cu)	-	-	-	A52FP(Cu)	SM490YA(Cu)
P235GH	FE360-1KW	HI	A285 Gr. C - A414 Gr. C	A37CP	SPV24
P275SL	-	SPH275	-		
P265GH	FE410-1KW	HII	A414 Gr. E	A42CP	SGV42
16Mo3	16Mo3	15Mo3	A204 Gr. B	15D3	
P295GH	FE460-1KW	17Mn4	A299 A414 Gr. F	A48CP	SGV46
P355GH	FE510-1KW	A19Mn6	A414 Gr. G	A52CP	SGV49

Quality Key

European Norm	Italian UNI	German DIN	ASTM - SAE	French NF	Japan JIS
P355N	FEE355 KW	WSTE355	A516 Gr. 70	A510 AP	-
P355NL2	FEE355 KT	TSTE355	A516 Gr. 70	A510 FP	-
E335	FEE590	ST60-2	-	A60-2	-
S235J0	-	STE285	-	-	SM400B
P275NL1	-	TSTE285	A633A	-	-
P355NL1	-	TSTE355	A633C	E355FP	-
S420N	-	STE420	-	E420R	SM490C
S420NL	-	TSTE420	A633E	E420FP	-
S460N	-	STE460	-	E460R	SM520B
S460NL	-	TSTE460	-	E460FP	-
P355NL1	-	TSTE355TM	A945 Gr. 50	E355FP	-
S420N	-	STE420TM	-	E420R	-
S420NL	-	TSTE420TM	A945 Gr. 60	E420FP	-
S460N	-	STE460TM	-	E460R	-
S460NL	-	TSTE460TM	-	E460FP	-
S235J2W	-	WTST37-3	-	E24W-4	SMA490CW
S355J0W	FE355W	-	A70950W	E36W-B3	SMA50AW
-	-	WTST52-3	A70950W	-	-
S355K2W(+N)	-	-	-	E36W-B4	-
S460Q	-	-	A537A2	E460TR	SM58
S460QL	-	TSTE460V	-	E460TFP	-
S500Q	-	STE500V	-	E500TR	-
S500QL	-	TSTE500V	-	E500TFP	-
S550Q	-	STE550V	-	E550TR	-
S550QL	-	TSTE550V	-	E550TFP	-
S620Q	-	STE620V	-	E620TR	-
S620QL	-	TSTE620V	-	E620TFP	-
S690Q	-	STE690V	A514F	E690TR	-
S690QL	-	TSTE690V	A709100	E690TFP	-
-	-	TSTE960V	-	E960T-11	-
C22E	-	CK22	-	XC18	S20C
C25E	-	CK25	-	XC25	S25C
C30E	-	CK30	-	XC32	S30C
C55E	-	CK55	SAE1055	XC55	S55C
38Cr2	-	38Cr2	-	38C2	-
38Cr2u		38CrS2	-	38C2u	-
38Cr4	34Cr4	34Cr4	-	32C4	SCr430H
37Cr4	37Cr4	37Cr4	-	38C4	SCr435H
41Cr4	41Cr4	41Cr4	-	42C4	SCr440H
25CrMo4	25CrMo4	25CrMo4	-	25CD4	SCM420
34CrMo4	34CrMo4	34CrMo4	-	34CD4	SCM435H
42CrMo4	42CrMo4	42CrMo4	SAE4142	42CD4	SCM440H
50CrMo4	50CrMo4	50CrMo4	-	-	-
36CrNiMo4	36CrNiMo4	36CrNiMo4	-	-	-
34CrNiMo6	34CrNiMo6	34CrNiMo6	SAE4340	-	SNCM447
30CrNiMo8	30CrNiMo8	30CrNiMo8	-	30CDN8	SNCM431
S550MC	FEE560	OSTE550TM	GR80	E560D	-
S700MC	-	OSTE690TM	-	E690D	-
P355N	-	ST52-3	GR50	E36	SM490B/C/YA

Quality Key

European Norm	Italian UNI	German DIN	ASTM - SAE	French NF	Japan JIS
S460M	-	-	GR65	-	SM570
DC01	FEP01	ST12	A366/CQ	C	SPCC
DC03	FEP02	ST13	A619/DQ	E	SPCD
DC04	FEP04	ST14	A620/DQSK	ES	SPCE
DC05	FEP05	ST15	-	SES	-
-	-	EK2	TYPE I	EME	SPCD
DD13(B)	FEP13(B)	STW24(B)	DS(B)	3C(B)	SPHE(B)
P245NB	FEE24 KR	H I	-	BS 1	SG 255
P265NB	FEE27 KR	H II	-	BS 2	SG 295
P310NB	FEE31 KR	17Mn4	-	BS 3	SG 325
P355NB	FEE35 KR	19Mn6	-	BS 4	SG 365
51CrV4	51CrV4	50CrV4	50C4V2	50CV4	SUP10
C45E	C45	CK45	SAE1042-1045	XC48	S45C
P355N	FEE355KGN	STE355	-	E355R	SM490B
P355NL1	FEE355KTN	TSTE355	A633 Gr. C, D	E355FP	-
S235J0	FE360C	ST37-3U	-	E24-3	SM400B
S275J0	FE430C	ST44-3U	A572 Gr. 42	E28-3	-
S235J2(+N)	FE360D	ST37-3N	A284 Gr. D	E24-4	SM400C
S275J2(+N)	FE430D	ST44-3N	A572 Gr. 42,50	E28-4	-
S355J0	FE510D	ST52-3N	A572 Gr. 50	E36-3	SM490C
S355K2(+N)	-	-	-	E36-4	SM490YB
DC06	FEP06	IF18	EDDS	IF	-
HC260LA	-	ZSTE260	-	E240C	SPFC390
HC300LA	FEE275F	ZSTE300	Gr. 45	E280C	SPFC440
HC340LA	FEE315F	ZSTE340	Gr. 50	E315C	SPFC490
HC380LA	FEE355F	ZSTE380	Gr. 55	E355C	SPFC540
HC420LA	FEE420F	ZSTE420	Gr. 60		SPFC590
-	FEE600DPF	-	-	XE360B	-
DC07	FEP07	-	-	-	-
-	FEP02S	EK4	TYPE III	EMES	-
-	FEP04S	-	TYPE II	-	-
-	FEE450DPF	-	-	-	SPC440
-	FEE500DPF	-	-	XE300B	SPC490DU
-	FEE800DPF	-	-	XE450B	SPC780DU
DX51D	FEP02G	ST02Z	LFQ	GC	SGCC
DX52D	FEP03G	ST03Z	DQ	GE	SGCD1
DX53D	FEP05G	ST04Z	DQSK	GES	SGCD2
DX54D	FEP06G	ST06Z	DDS	-	SGCD3
-	-	-	SQ-GRADE230	C230	-
S250GD	FEE250G	STE250-2Z	SQ-GRADE255	C250	SGC340
S280GD	FEE280G	STE280-2Z	SQ-GRADE275	C280	SGC400
S320GD	FEE320G	STE320-3Z	-	C320	SGC440
S350GD	FEE350G	STE350-3Z	SQ-GRADE340	C350	SGC490
-	FEE600DPF ZNT/2S	-	-		SCGA590
S550GD	FEE550G	-	SQ-GRADE550	C550	SGC570
-	FEE450DPF ZNT/2S	-	-	-	SCGA440

Contact

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