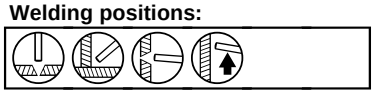
Cromacore DW 308H

FCAW - Flux cored arc welding
Stainless Steel

Date: 2002-10-23
Revision: 4

Description:
Cromacore DW 308H is a rutile flux cored wire intended for welding similar composition steels eg. 304H, where the controlled carbon level, (0,04%-0,08%), provides creep strength at temperatures up to 800°. The wire is also recommended for welding material grades 321H and 347H, used for structural applications at temperatures above 400°C. Cromacore DW 308H operates with a very stable, spatter free arc producing a bright, smooth weld bead surface and self releasing slag. The wire is mainly used for horizontal and horizontal-vertical positions.

Welding positions:



Welding current:
DC +

Deposition efficiency:
87%

Shielding gas:
100% CO2, 22-25 l/min.

Stick-out:
15-25 mm

Ferrite content:
FN 5

Chemical composition, wt.%

	C	Si	Mn	P	S	Cr	Ni
Min	0.04		0.5			18.0	9.0
Typical	0.06	0.35	1.15	0.025	0.006	18.8	9.6
Max	0.08	1.0	2.5	0.04	0.03	21.0	11.0

	Mo	Cu	V	Nb	N
Min					
Typical	0.1	0.01	0.1	0.08	0.01
Max	0.5	0.5	0.2	0.1	

Mechanical properties

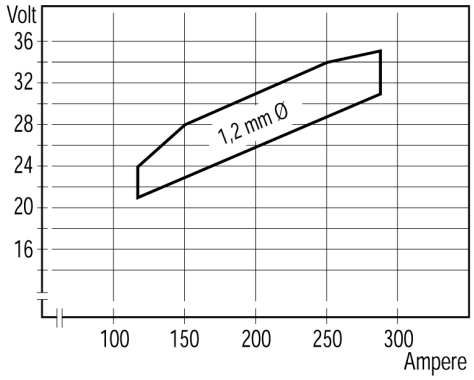
	Specified	Typical
Yield strength, Rp0.2%:		395 N/mm²
Tensile Strength, Rm:	>550 N/mm²	560 N/mm²
Elongation, A5	>35%	45%
Impact energy, CV:		0°C • 69 J

Classification:

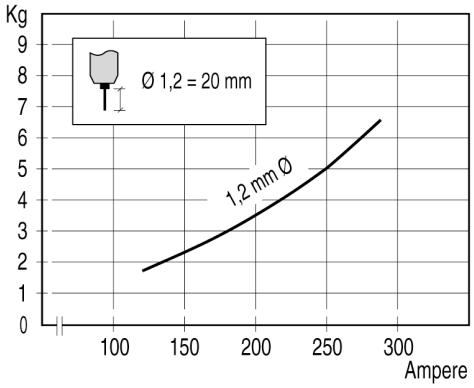
EN 12073	~T 19 9L R C 3
AWS A5.22	E308HT1-4

Approvals:

Recommended parameter range:



Deposition rate per hour:



Product data

Diam.mm	Product code	Delivery form
1,2	95704012	12,5 kg PSP

Note

For elevated temperatures service.
Ferrite content: Acc. to WRC-92
Strip:
S ≤ 0.03%
P ≤ 0.04%
N ≤ 0.06%

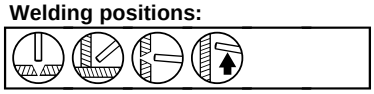
Cromacore DW 308H

FCAW - Flux cored arc welding
Stainless Steel

Date: 2002-10-23
Revision: 4

Description:
Cromacore DW 308H is a rutile flux cored wire intended for welding similar composition steels eg. 304H, where the controlled carbon level, (0,04%-0,08%), provides creep strength at temperatures up to 800°. The wire is also recommended for welding material grades 321H and 347H, used for structural applications at temperatures above 400°C. Cromacore DW 308H operates with a very stable, spatter free arc producing a bright, smooth weld bead surface and self releasing slag. The wire is mainly used for horizontal and horizontal-vertical positions.

Welding positions:



Welding current:
DC +

Deposition efficiency:
87%

Shielding gas:
100% CO2, 22-25 l/min.

Stick-out:
15-25 mm

Ferrite content:
FN 5

Chemical composition, wt.%

	C	Si	Mn	P	S	Cr	Ni
Min	0.04		0.5			18.0	9.0
Typical	0.06	0.35	1.15	0.025	0.006	18.8	9.6
Max	0.08	1.0	2.5	0.04	0.03	21.0	11.0

	Mo	Cu	V	Nb	N
Min					
Typical	0.1	0.01	0.1	0.08	0.01
Max	0.5	0.5	0.2	0.1	

Mechanical properties

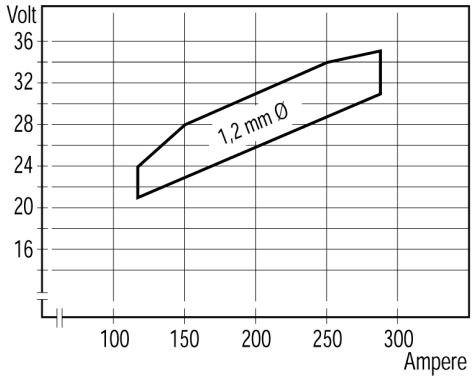
	Specified	Typical
Yield strength, Rp0.2%:		395 N/mm²
Tensile Strength, Rm:	>550 N/mm²	560 N/mm²
Elongation, A5	>35%	45%
Impact energy, CV:		0°C • 69 J

Classification:

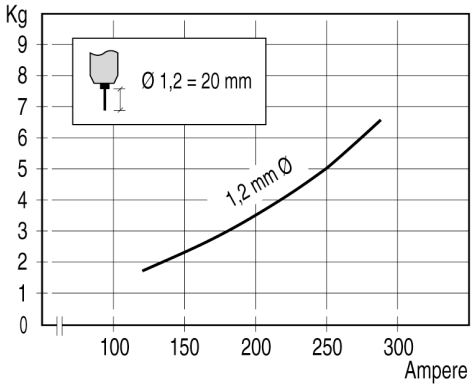
EN 12073	~T 19 9L R C 3
AWS A5.22	E308HT1-4

Approvals:

Recommended parameter range:



Deposition rate per hour:



Product data

Diam.mm	Product code	Delivery form
1,2	95704012	12,5 kg PSP

Note

For elevated temperatures service.
Ferrite content: Acc. to WRC-92
Strip:
S ≤ 0.03%
P ≤ 0.04%
N ≤ 0.06%

Cromacore DW 308L

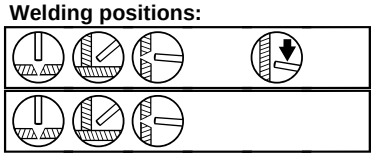
FCAW - Flux cored arc welding
Stainless Steel

Date:	1999-01-18
Revision:	9

Description:
Cromacore DW 308L is a rutile flux cored wire designed for welding the 18% Cr / 10% Ni type stainless steels. Suitable also for stabilised grades 347 and 321 if service temperature is below 400°C. The wire operates with a very stable, spatter free arc producing a bright, smooth weld bead surface and self-releasing slag. Cromacore DW 308L is used mainly for downhand and horizontal-vertical welding and is ideal for standing fillets.

Applications:
AISI•DIN•BS 1449•Werkst.nr.
304•X5CrNi 18 9•304 S15•1.4301
304L•X2CrNi 18 9•304 S12•1.4306
304LN•X2CrNiN 18 10•304 S62•1.4311
321•X10CrNiTi 18 9•321 S12•1.4541
347•X10CrNiNb 18 9•347 S17•1.4550
E.g.: NU: 3MM, 3LN, 53, 63
Sandvik: 5R10, 2R12, 8R30, 6R40
Avesta: 18-9, 18-10L, 18-9LN, 18-10Ti, 18-10Nb

Welding positions:



Welding current:
DC +

Deposition efficiency:
87%

Shielding gas:
80% Ar + 20% CO2, 22-25 l/min
100% CO2, 22-25 l/min

Stick-out:
15-25 mm

Ferrite content:
FN 6

Chemical composition, wt.%

	C	Si	Mn	P	S	Cr	Ni
Min			0.5			18.0	9.0
Typical	0.03	0.6	1.8	0.020	0.010	19.3	10.0
Max	0.04	1.0	2.5	0.04	0.03	21.0	11.0

	Mo	Cu	V	Nb
Min				
Typical	0.1	0.09	0.1	0.08
Max	0.5	0.5	0.2	0.1

Mechanical properties

	Specified	Typical
Yield strength, Rp0.2%:		400 N/mm2
Tensile Strength, Rm:	> 515 N/mm2	570 N/mm2
Elongation, A5	> 35%	42%
Impact energy, CV:		–20°C•43 J

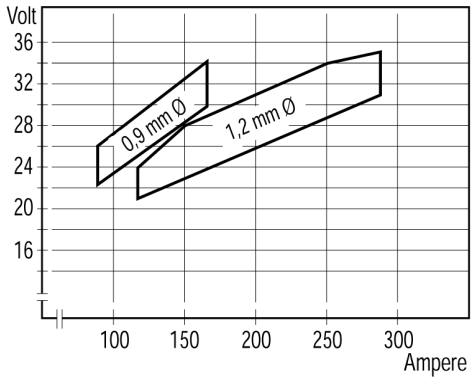
Classification:

AWS A5.22-95	E 308LT0-4/-1
DIN 8556-86	19 9 L
NF A81-358	TGSZ 20.10L
Werkstoff no.	1.4316

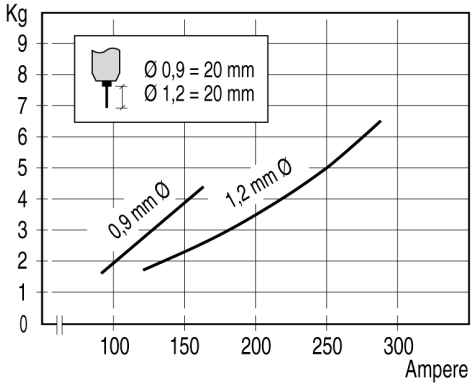
Approvals:

TÜV	19 9 L R
LR	
GL	4550S
UDT	19 9 L
DNV	308LMS

Recommended parameter range:



Deposition rate per hour:



Article

Diam.mm	Product code	Delivery form
0,9	95702109	5 kg PSP
1,2	95702012	12,5 kg PSP

Note

Strip:
S ≤ 0.03%
P ≤ 0.04%
N ≤ 0.06%

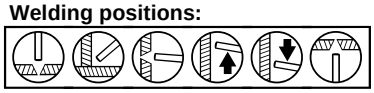
Cromacore DW 308LP

FCAW - Flux cored arc welding
Stainless Steel

Date:	1999-01-18
Revision:	9

Description:
Cromacore DW 308LP is a rutile flux cored wire intended for welding the 18% Cr / 10% Ni type stainless steels. The wire has been specially designed for fully positional welding at high welding currents. Suitable also for stabilised grades 347 and 321 if service temperature is below 400°C. Cromacore DW 308LP operates with a very stable, spatter free arc and produces a bright, smooth weld bead surface and self-releasing slag. Ideal for high productivity welding in the vertical position.

Welding positions:



Welding current:
DC +

Deposition efficiency:
87%

Shielding gas:
80% Ar + 20% CO2, 22-25 l/min
100% CO2, 22-25 l/min

Stick-out:
15-25 mm

Ferrite content:
FN 9

Chemical composition, wt.%

	C	Si	Mn	P	S	Cr	Ni
Min			0.5			18.0	9.0
Typical	0.03	0.7	1.5	0.020	0.010	19.6	9.9
Max	0.04	1.0	2.5	0.04	0.03	21.0	11.0

	Mo	Cu	V	Nb
Min				
Typical	0.1	0.05	0.1	0.08
Max	0.5	0.5	0.2	0.1

Mechanical properties

	Specified	Typical
Yield strength, Rp0.2%:		400 N/mm2
Tensile Strength, Rm:	> 515 N/mm2	590 N/mm2
Elongation, A5	> 35%	41%
Impact energy, CV:		–20°C•40 J

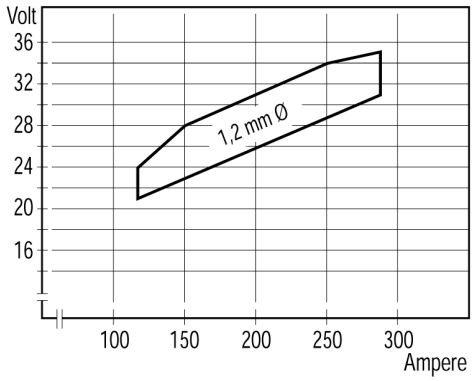
Classification:

AWS A5.22-95	E 308LT1-4/-1
NF A81-358	TGSZ 20.10L

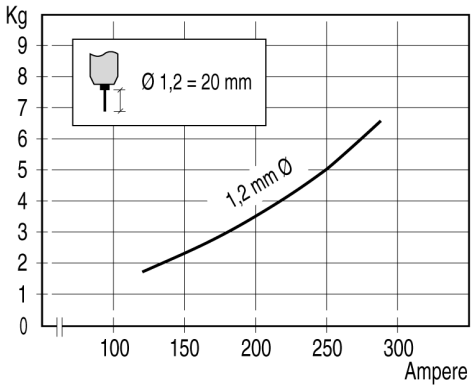
Approvals:

UDT	E 308LT-1
GL	4550S
CL	1365 99.02
TUV	

Recommended parameter range:



Deposition rate per hour:



Article

Diam.mm	Product code	Delivery form
1,2	95772012	12,5 kg PSP

Note

Strip:
S ≤ 0.03%
P ≤ 0.04%
N ≤ 0.06%

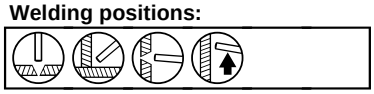
Cromacore DW 308LT

FCAW - Flux cored arc welding
Stainless Steel

Date:	1998-11-09
Revision:	3

Description:
Cromacore DW 308LT is a rutile flux cored wire intended for welding the ASTM; 304H steels designated for cryogenic service. The weld metal has very low ferrite level and good impact properties at –196°C. The wire welds with a very stable arc that gives minimal spatter, the slag- detachability is excellent and it has a smooth bead appearance.

Welding positions:



Welding current:
DC +

Deposition efficiency:
87%

Shielding gas:
100% CO_2, 22-25 l/min.

Stick-out:
15-25 mm

Ferrite content:
FN 2

Chemical composition, wt.%

	C	Si	Mn	P	S	Cr	Ni
Min			0.5			18.0	9.0
Typical	0.025	0.4	2.1	0.025	0.006	18.5	10.6
Max	0.04	1.0	2.5	0.04	0.03	21.0	11.0

	Mo	Cu	V	Nb	N
Min					
Typical	0.1	0.01	0.1	0.08	0.01
Max	0.5	0.5	0.2	0.1	

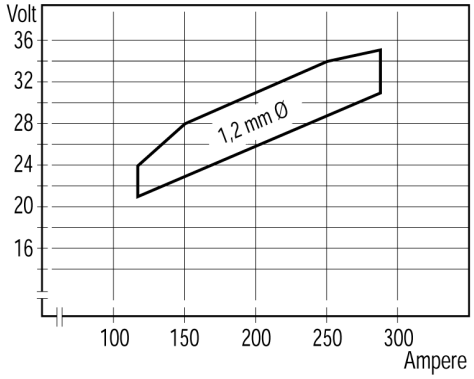
Mechanical properties

	Specified	Typical
Yield strength, Rp0.2%:		350 N/mm2
Tensile Strength, Rm:	>520 N/mm2	530 N/mm2
Elongation, A5	>35%	44%
Impact energy, CV:		–196°C•37 J

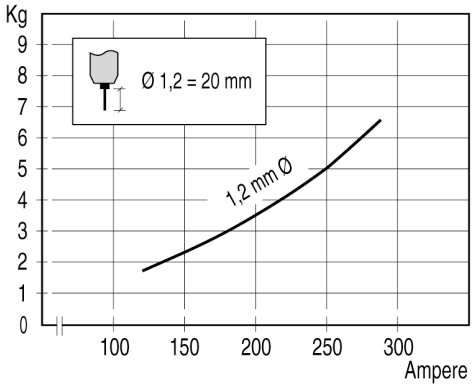
Classification:
AWS A5.22-95 E308LT0-1

Approvals:

Recommended parameter range:



Deposition rate per hour:



Article

Diam.mm	Product code	Delivery form
1,2	95705012	12,5 kg PSP

Note

For cryogenic service.
Ferrite content: Acc. to WRC-92.
Strip:
S ≤ 0.03%
P ≤ 0.04%
N ≤ 0.06%

Cromacore DW 309L

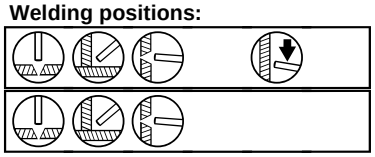
FCAW - Flux cored arc welding
Stainless Steel

Date:	1999-01-18
Revision:	9

Description:
Cromacore DW 309L is a rutile flux cored wire which deposits a low carbon 24% Cr / 13% Ni stainless steel weld metal with a ferrite content of about FN 14. The wire operates with a very stable, spatter free arc producing a bright, smooth weld bead surface and self-releasing slag. Cromacore DW 309L is used mainly for downhand and horizontal-vertical welding and is ideal for standing fillets.

Applications:
Buffer layers on mild and low alloy steels prior to overlaying with Cromacore DW 308L/LP.
Joining of clad steels and dissimilar joints between stainless steels and mild or low alloy steels.
Welding of similar composition, 309 type, stainless steels.
Joining of ferritic-martensitic stainless steels.

Welding positions:



Welding current:
DC +

Deposition efficiency:
87%

Shielding gas:
80% Ar + 20% CO2, 22-25 l/min
100% CO2, 22-25 l/min

Stick-out:
15-25 mm

Ferrite content:
FN 14

Chemical composition, wt.%

	C	Si	Mn	P	S	Cr	Ni
Min			0.5			22.0	12.0
Typical	0.03	0.7	1.4	0.025	0.009	24.0	12.7
Max	0.04	1.0	2.5	0.040	0.03	25.0	14.0

	Mo	Cu	V	Nb
Min				
Typical	0.1	0.15	0.1	0.08
Max	0.5	0.50	0.2	0.1

Mechanical properties

	Specified	Typical
Yield strength, Rp0.2%:		460 N/mm2
Tensile Strength, Rm:	> 515 N/mm2	590 N/mm2
Elongation, A5	> 30%	36%
Impact energy, CV:		–20°C•38 J

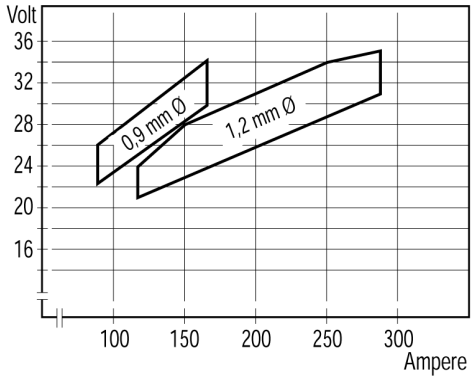
Classification:

AWS A5.22-95	E 309LT0-4/-1
NF A81-358	TGSZ 24-13.L.3

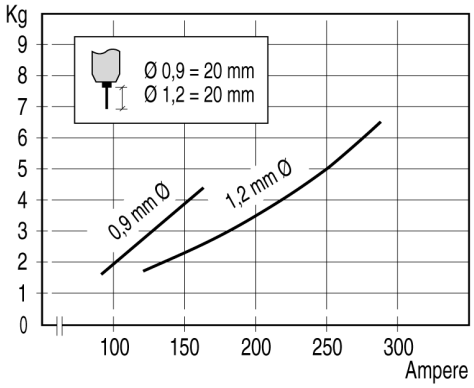
Approvals:

UDT	E 309LT-1
GL	4332S
BV	
DNV	309LMS
TÜV	23 12 LR
LR	

Recommended parameter range:



Deposition rate per hour:



Article

Diam.mm	Product code	Delivery form
0,9	95722109	5 kg PSP
1,2	95722012	12,5 kg PSP
1,6	95722016	12,5 kg PSP

Note

Strip:
S ≤ 0.03%
P ≤ 0.04%
N ≤ 0.06%

Cromacore DW 309LP

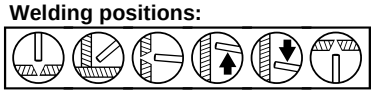
FCAW - Flux cored arc welding
Stainless Steel

Date:	1999-01-18
Revision:	9

Description:
Cromacore DW 309LP is a fully positional rutile flux cored wire which deposits a low carbon 24% Cr / 13% Ni stainless steel weld metal with a ferrite content of about FN 14. Cromacore DW 309LP operates with a very stable, spatter free arc producing a bright, smooth weld bead surface and self-releasing slag. Ideal for high productivity welding in the vertical position.

Applications:
Buffer layers on mild and low alloy steels prior to overlaying with Cromacore 308L/LP.
Joining of clad steels and dissimilar joints between stainless steels and mild or low alloy steels.
Welding of similar composition, 309 type, stainless steels.
Joining of ferritic-martensitic stainless steels.

Welding positions:



Welding current:
DC +

Deposition efficiency:
87%

Shielding gas:
80% Ar + 20% CO2, 22-25 l/min
100% CO2, 22-25 l/min

Stick-out:
15-25 mm

Ferrite content:
FN 14

Chemical composition, wt.%

	C	Si	Mn	P	S	Cr	Ni
Min			0.5			22.0	12.0
Typical	0.03	0.7	1.3	0.019	0.010	23.9	12.5
Max	0.04	1.0	2.5	0.04	0.03	25.0	14.0

	Mo	Cu	V	Nb
Min				
Typical	0.1	0.06	0.1	0.08
Max	0.5	0.5	0.2	0.1

Mechanical properties

	Specified	Typical
Yield strength, Rp0.2%:		460 N/mm2
Tensile Strength, Rm:	> 515 N/mm2	590 N/mm2
Elongation, A5	> 30%	36%
Impact energy, CV:		–20°C•38 J

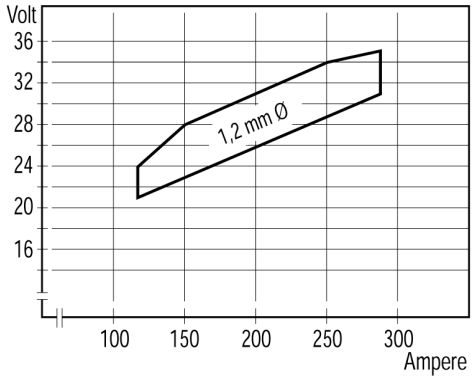
Classification:

AWS A5.22-95	E 309LT1-4/-1
NF A81-358	TGSZ 24-13.L.1

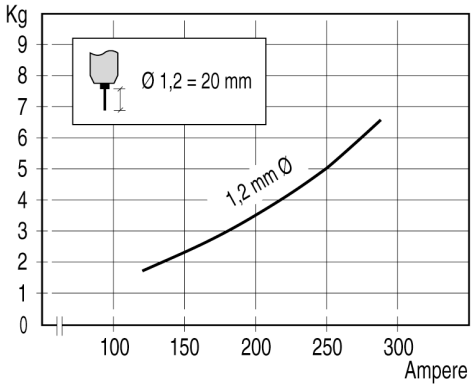
Approvals:

LR	
CL	1319 99.02
DNV	309L
UDT	E 309LT-1
GL	4332S

Recommended parameter range:



Deposition rate per hour:



Article

Diam.mm	Product code	Delivery form
1,2	95752012	12,5 kg PSP
1,2	95752412	4,17 kg PSP

Note

Strip:
S ≤ 0.03%
P ≤ 0.04%
N ≤ 0.06%

Cromacore DW 309MoL

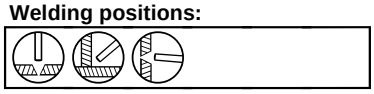
FCAW - Flux cored arc welding
Stainless Steel

Date:	1999-01-18
Revision:	10

Description:
Cromacore DW 309MoL is a rutile flux cored wire which deposits a 23% Cr/13% Ni/ 2,5% Mo stainless steel weld metal with a ferrite content of approximately FN 22. The high alloy content and high ferrite level enable the weld metal to tolerate dilution from dissimilar and difficult-to-weld steels without cracking. The wire operates with a very stable, spatter free arc to produce a bright, smooth weld bead surface and self-releasing slag. Cromacore DW 309MoL is ideal for high productivity welding in the horisontal position and standing fillets.

Applications:
Buffer layers on mild and low alloy steels prior to overlaying with Cromacore DW 316L/LP.
Joining of clad steels and dissimilar joints between stainless steels and mild or low alloy steels.

Welding positions:



Welding current:
DC +

Deposition efficiency:
87%

Shielding gas:
80% Ar + 20% CO2, 22-25 l/min
100% CO2, 22-25 l/min

Stick-out:
15-25 mm

Ferrite content:
FN 22

Chemical composition, wt.%

	C	Si	Mn	P	S	Cr	Ni
Min			0.5			22.0	12.0
Typical	0.02	0.7	1.3	0.024	0.009	23.0	12.9
Max	0.04	1.0	2.5	0.04	0.03	25.0	14.0

	Mo	Cu	V	Nb
Min	2.0			
Typical	2.4	0.11	0.1	0.08
Max	3.0	0.5	0.2	0.1

Mechanical properties

	Specified	Typical
Yield strength, Rp0.2%:		540 N/mm2
Tensile Strength, Rm:	> 515 N/mm2	710 N/mm2
Elongation, A5	> 25%	30%
Impact energy, CV:		0°C • 29 J

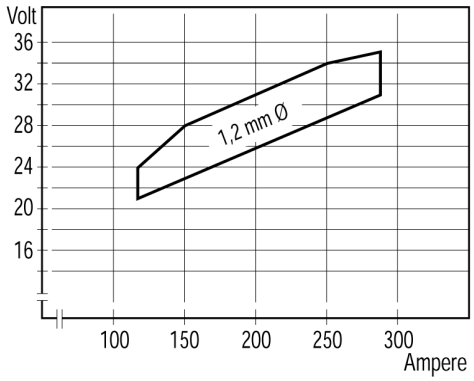
Classification:

AWS A5.22-95	E 309LMoT0-4/-1
DIN 8556-86	23 13 2
Werkstoff no.	1.4459

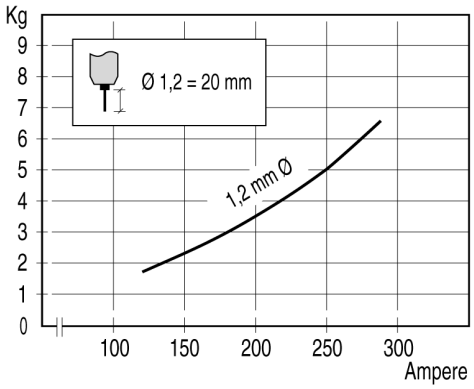
Approvals:

UDT	23 13 2
BV	
RINA	SG 309MO
DNV	309MOL MS
LR	
TÜV	23 13 2 LR

Recommended parameter range:



Deposition rate per hour:



Article

Diam.mm	Product code	Delivery form
1,2	95732012	12,5 kg PSP
1,2	95732412	4,17 kg PSP

Note

Strip:
S ≤ 0.03%
P ≤ 0.04%
N ≤ 0.06%

Cromacore DW 309MoLP

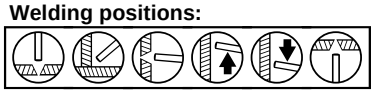
FCAW - Flux cored arc welding
Stainless Steel

Date:	1998-11-09
Revision:	4

Description:
Cromacore DW 309MoLP is a fully positional rutile flux cored wire which deposits a 23% Cr/13% Ni/2.5% Mo stainless steel weld metal with a ferrite content of approximately FN 22. The high alloy content and high ferrite level enable the weld metal to tolerate dilution from dissimilar and difficult-to-weld steels without cracking. The wire operates with a very stable, spatter free arc to produce a bright, smooth weld bead surface and self-releasing slag. Ideal for high productivity welding in the vertical position.

Applications:
Buffer layers on mild and low alloy steels prior to overlaying with Cromacore DW 316L/LP.
Joining of clad steels and dissimilar joints between stainless steels and mild or low alloy steels.
Joining of medium carbon hardenable steels.

Welding positions:



Welding current:
DC +

Deposition efficiency:
87%

Shielding gas:
80% Ar + 20% CO2, 22-25 l/min
100% CO2, 22-25 l/min

Stick-out:
15-25 mm

Ferrite content:
FN 22

Chemical composition, wt.%

	C	Si	Mn	P	S	Cr	Ni
Min			0.5			22.0	12.0
Typical	0.02	0.7	1.3	0.024	0.009	23.0	12.9
Max	0.04	1.0	2.5	0.04	0.03	25.0	14.0

	Mo	Cu	V	Nb
Min	2.0			
Typical	2.4	0.11	0.1	0.08
Max	3.0	0.5	0.2	0.1

Mechanical properties

	Specified	Typical
Yield strength, Rp0.2%:		540 N/mm2
Tensile Strength, Rm:	> 515 N/mm2	710 N/mm2
Elongation, A5	> 25%	30%
Impact energy, CV:		0°C•29 J

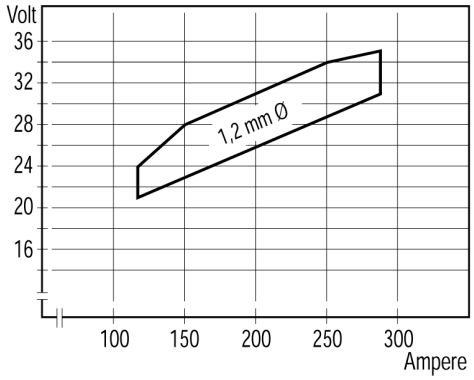
Classification:

AWS A5.22-95	E 309LMoT1-4/-1
DIN 8556-86	23 13 2
Werkstoff no.	1.4459

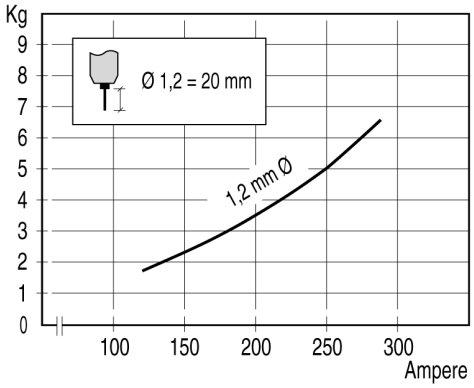
Approvals:

LR	
DNV	309MOL MS
BV	

Recommended parameter range:



Deposition rate per hour:



Article

Diam.mm	Product code	Delivery form
1,2	95852012	12,5 kg PSP
1,2	95852412	4,17 kg PSP

Note

Strip:
S ≤ 0.03%
P ≤ 0.04%
N ≤ 0.06%

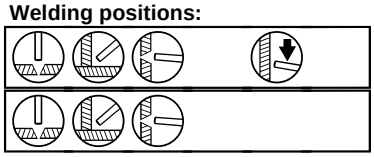
Cromacore DW 316L

FCAW - Flux cored arc welding
Stainless Steel

Date:	1999-01-18
Revision:	10

Description:
Cromacore DW 316L is a rutile flux cored wire designed for welding the 19% Cr / 12% Ni / 3% Mo type stainless steels. Suitable also for related stabilised grades if service temperature is below 400°C. The wire operates with a very stable, spatter free arc producing a bright, smooth weld bead surface and self-releasing slag. Cromacore DW 316L is used mainly for downhand and horizontal-vertical welding and is ideal for standing fillets. Cromacore DW 316L, 0.9 mm is intended for use with material thicknesses less than 3.0 mm.

Welding positions:



Welding current:
DC +

Deposition efficiency:
87%

Shielding gas:
80% Ar + 20% CO2, 22-25 l/min
100% CO2, 22-25 l/min

Stick-out:
15-25 mm

Ferrite content:
FN 9

Chemical composition, wt.%

	C	Si	Mn	P	S	Cr	Ni
Min			0.5			17.0	11.0
Typical	0.03	0.7	1.2	0.025	0.009	18.3	12.1
Max	0.04	1.0	2.5	0.04	0.03	20.0	14.0

	Mo	Cu	V	Nb
Min	2.0			
Typical	2.8	0.11	0.1	0.08
Max	3.0	0.5	0.2	0.1

Mechanical properties

	Specified	Typical
Yield strength, Rp0.2%:		410 N/mm2
Tensile Strength, Rm:	> 485 N/mm2	570 N/mm2
Elongation, A5	> 30%	44%
Impact energy, CV:		–20°C•40 J

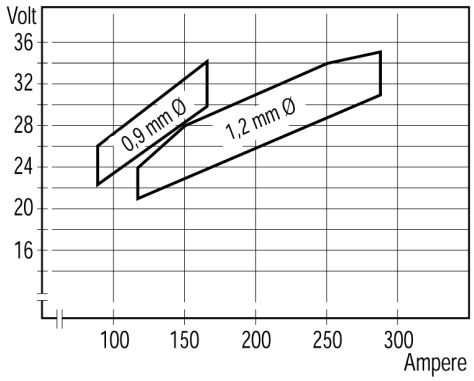
Classification:

AWS A5.22-95	E 316LT0-4/-1
DIN 8556-86	19 12 3 L
NF A81-358	TGSZ 1-13.3.L.3
Werkstoff no.	1.4430

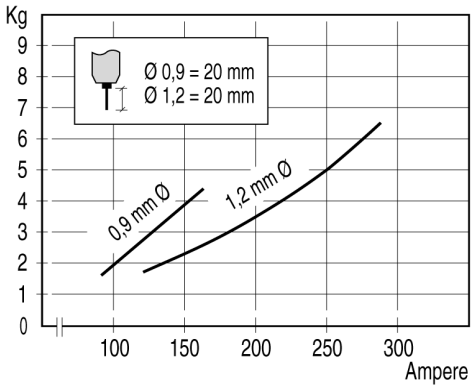
Approvals:

UDT	19 12 3 L
DNV	316L MS
TÜV	19 12 3 LR
BV	
LR	

Recommended parameter range:



Deposition rate per hour:



Article

Diam.mm	Product code	Delivery form
0,9	95712109	5 kg PSP
1,2	95712012	12,5 kg PSP

Note

Strip:
S ≤ 0.03%
P ≤ 0.04%
N ≤ 0.06%

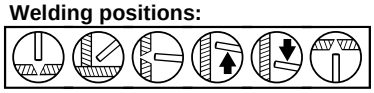
Cromacore DW 316LP

FCAW - Flux cored arc welding
Stainless Steel

Date:	1999-01-18
Revision:	9

Description:
Cromacore DW 316LP is a rutile flux cored wire intended for welding the 19% Cr / 12% Ni / 3% Mo type stainless steels. The wire has been specially designed for fully positional welding at high welding currents. Suitable also for related stabilised grades if service temperature is below 400°C. Cromacore DW 316LP operates with a very stable, spatter free arc and produces a bright, smooth weld bead surface and self-releasing slag. Ideal for high productivity welding in the vertical position.

Welding positions:



Welding current:
DC +

Deposition efficiency:
87%

Shielding gas:
80% Ar + 20% CO2, 22-25 l/min
100% CO2, 22-25 l/min

Stick-out:
15-25 mm

Ferrite content:
FN 9

Chemical composition, wt.%

	C	Si	Mn	P	S	Cr	Ni
Min			0.5			17.0	11.0
Typical	0.03	0.8	1.5	0.022	0.011	18.6	12.4
Max	0.04	1.0	2.5	0.04	0.03	20.0	14.0

	Mo	Cu	V	Nb
Min	2.0			
Typical	2.9	0.067	0.1	0.08
Max	3.0	0.5	0.2	0.1

Mechanical properties

	Specified	Typical
Yield strength, Rp0.2%:		430 N/mm2
Tensile Strength, Rm:	> 485 N/mm2	600 N/mm2
Elongation, A5	> 30%	36%
Impact energy, CV:		–20°C•40 J

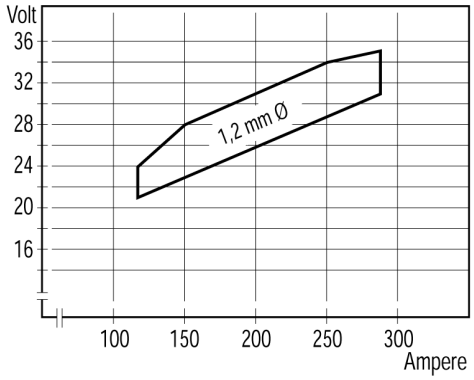
Classification:

AWS A5.22-95	E 316LT1-4/-1
NF A81-358	TGSZ 19-13.3.L.1

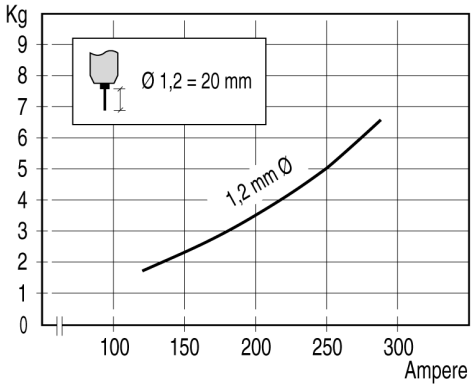
Approvals:

GL	4429S
UDT	E 316LT-1
LR	
CL	1064 99.02
DNV	316L MS

Recommended parameter range:



Deposition rate per hour:



Article

Diam.mm	Product code	Delivery form
1,2	95742012	12,5 kg PSP
1,2	95742412	4,17 kg PSP

Note

Strip:
S ≤ 0.03%
P ≤ 0.04%
N ≤ 0.06%

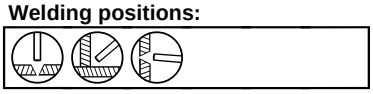
Cromacore DW 329A Duplex

FCAW - Flux cored arc welding
Stainless Steel

Date:	1999-01-18
Revision:	9

Description:
Cromacore DW 329A Duplex is a rutile flux cored wire which deposits a low carbon 23% Cr / 9% Ni / 3% Mo / N duplex stainless steel weld metal with a nominal ferrite level of FN 40. The wire is designed for welding in the flat and horizontal-vertical positions only and is ideal for standing fillets. It is intended for welding similar duplex stainless steels which offer an excellent combination of high strength and very good resistance to chloride induced pitting and stress corrosion cracking. Cromacore 329A Duplex operates with a very stable, spatter-free arc and produces a bright, smooth weld bead surface and self-releasing slag.

Welding positions:



Welding current:
DC +

Deposition efficiency:
87%

Shielding gas:
80% Ar + 20% CO2, 22-25 l/min
100% CO2, 22-25 l/min

Stick-out:
15-25 mm

Ferrite content:
FN 40

Corrosion resistance
Pitting resistance equivalent, PRE = 35.
Critical pitting temperature, CPT = 30°C (ASTM G48).

Chemical composition, wt.%

	C	Si	Mn	P	S	Cr	Ni
Min			0.5			22.0	8.0
Typical	0.02	0.8	1.3	0.025	0.007	22.9	9.2
Max	0.04	1.0	2.5	0.025	0.02	24.0	10.0

	Mo	Cu	V	Nb	N
Min	2.5				0.08
Typical	3.0	0.02	0.1	0.08	0.10
Max	4.0	0.50	0.2	0.1	0.20

Mechanical properties

	Specified	Typical
Yield strength, Rp0.2%:	> 500 N/mm2	610 N/mm2
Tensile Strength, Rm:	> 700 N/mm2	800 N/mm2
Elongation, A5	> 20%	32%
Impact energy, CV:	–20°C•27 J	–20°C•35 J

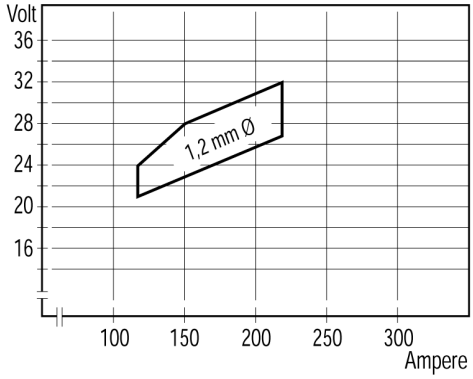
Classification:

AWS A5.22-95	E 2209T0-4/-1
DIN 8556	22 9 3 LR

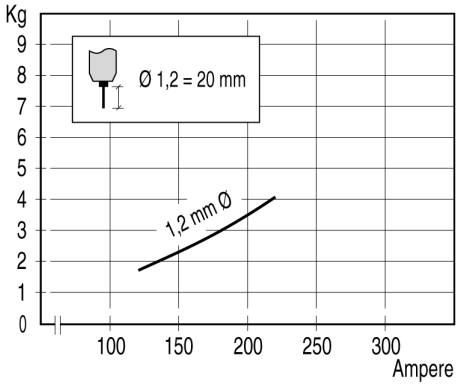
Approvals:

DNV	
UDT	22 9 3 LR
RINA	SG 2209

Recommended parameter range:



Deposition rate per hour:



Article

Diam.mm	Product code	Delivery form
1,2	95762012	12,5 kg PSP
1,2	95762412	4,17 kg PSP

Note

Strip:
S ≤ 0.03%
P ≤ 0.04%
N ≤ 0.06%

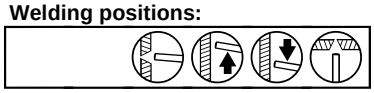
Cromacore DW 329AP Duplex

FCAW - Flux cored arc welding
Stainless Steel

Date:	1999-01-18
Revision:	5

Description:
Cromacore DW 329AP Duplex is a rutile flux cored wire which deposits a low carbon 23% Cr / 9% Ni / 3% Mo / N duplex stainless steel weld metal with a nominal ferrite level of FN 40. The wire is specially designed for positional welding and is not recommended for flat or horizontal-vertical applications. It is intended for welding similar duplex stainless steels which offer an excellent combination of high strength and very good resistance to chloride induced pitting and stress corrosion cracking. The wire operates with a very stable, spatter-free arc and produces a bright, smooth weld bead surface and self-releasing slag. Cromacore DW 329AP Duplex is ideal for high productivity welding in the vertical position.

Welding positions:



Welding current:
DC +

Deposition efficiency:
87%

Shielding gas:
80% Ar + 20% CO2, 22-25 l/min
100% CO2, 22-25 l/min

Stick-out:
15-25 mm

Ferrite content:
FN 40

Corrosion resistance
Pitting resistance equivalent, PRE = 35.
Critical pitting temperature, CPT = 30°C (ASTM G48).

Chemical composition, wt.%

	C	Si	Mn	P	S	Cr	Ni
Min			0.5			22.0	8.0
Typical	0.02	0.8	1.3	0.025	0.007	22.9	9.2
Max	0.04	1.0	2.5	0.025	0.02	24.0	10.0

	Mo	Cu	V	Nb	N
Min	2.5				0.08
Typical	3.0	0.02	0.1	0.08	0.10
Max	4.0	0.50	0.2	0.1	0.20

Mechanical properties

	Specified	Typical
Yield strength, Rp0.2%:	> 500 N/mm2	610 N/mm2
Tensile Strength, Rm:	> 700 N/mm2	800 N/mm2
Elongation, A5	> 20%	32%
Impact energy, CV:	–20°C • 27 J	–40°C • 35 J

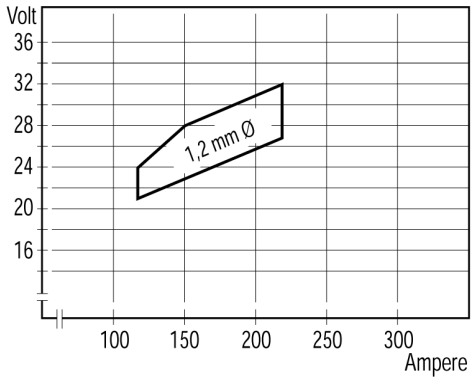
Classification:

AWS A5.22-95	E 2209T1-4/-1
DIN 8556	22 9 3 LR

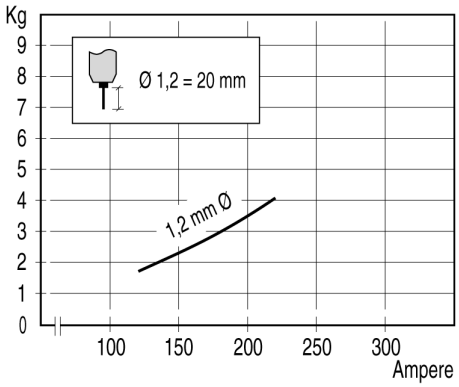
Approvals:

RINA	SG 2209
UDT	22 9 3 LR
DNV	
Controlas	1256 99.02

Recommended parameter range:



Deposition rate per hour:



Article

Diam.mm	Product code	Delivery form
1,2	95782012	12,5 kg PSP
1,2	95782412	4,17 kg PSP

Note

Strip:
S ≤ 0.03%
P ≤ 0.04%
N ≤ 0.06%

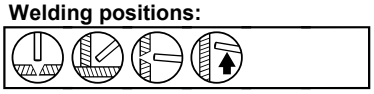
Cromacore DW 347

FCAW - Flux cored arc welding
Stainless Steel

Date:	1998-11-09
Revision:	3

Description:
Cromacore DW 347 is a rutile flux cored wire for welding of titanium or niobium stabilized stainless steels such as ASTM; 347 or 321. The weld metal is characterized by a high intergranual corrosion resistance and is therefore very well suited for welding of structures which will be subjected to service temperatures above 400°C.

Welding positions:



Welding current:
DC +

Deposition efficiency:
87%

Shielding gas:
80% Ar + 20% CO_2, 22-25 l/min.
100% CO_2, 22-25 l/min.

Stick-out:
15-25 mm

Ferrite content:
FN 5

Chemical composition, wt.%

	C	Si	Mn	P	S	Cr	Ni
Min			0.5			18.0	9.0
Typical	0.03	0.4	1.1	0.025	0.006	18.5	9.5
Max	0.08	1.0	2.5	0.04	0.03	21.0	11.0

	Mo	Cu	V	Cb (Nb) + Ta
Min				
Typical	0.1	0.01	0.1	8xC
Max	0.5	0.5	0.2	0.7
				1.0

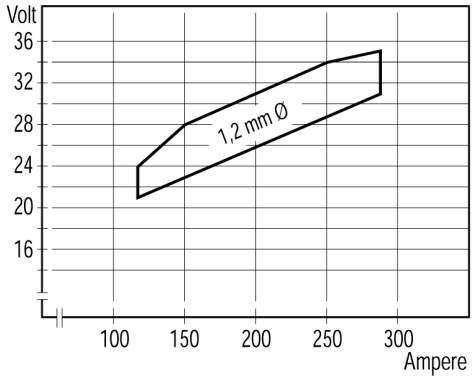
Mechanical properties

	Specified	Typical
Yield strength, Rp0.2%:		415 N/mm2
Tensile Strength, Rm:	>520 N/mm2	590 N/mm2
Elongation, A5	>30%	43
Impact energy, CV:		0°C•49 J

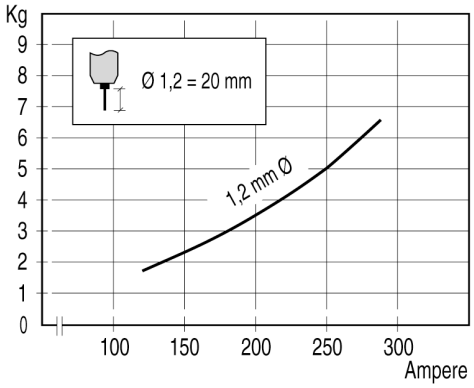
Classification:
AWS A5.22-95 E347T0-4

Approvals:

Recommended parameter range:



Deposition rate per hour:



Article

Diam.mm	Product code	Delivery form
1,2	95792012	12,5 kg PSP

Note

For elevated temperatures service.
Ferrite content: Acc. to WRC-92
Strip:
S ≤ 0.03%
P ≤ 0.04%
N ≤ 0.06%

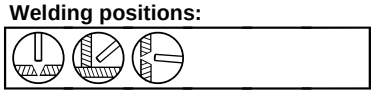
Cromacore MXA 135N

FCAW - Flux cored arc welding
Stainless Steel

Date:	1999-03-22
Revision:	1

Description:
Cromacore MXA 135N is a metal-cored wire for 13% Cr, 4-5% Ni-martensitic stainless steels.The weldmetal gives excellent mechanical properties, including good anti-cracking properties. The delayed cracking is low because of the very low hydrogen content. In heavy welded joints, preheat of approx. 100°C is necessary. Cromacore MXA 135N is designed for M21mix-gas.

Welding positions:



Welding current:
DC +

Deposition efficiency:
96%

Shielding gas:
80% Ar + 20% CO2, 22-25 l/min.

Stick-out:
15-25 mm

Chemical composition, wt.%

	C	Si	Mn	P	S	Cr	Ni
Min						11.5	4.25
Typical	0.015	0.6	0.30	0.024	0.007	12.5	5.0
Max	0.04	1.0	1.0	0.03	0.025	13.5	5.75

	Mo	Cu
Min		
Typical	0.027	0.06
Max	0.5	

Mechanical properties

	Specified	Typical	PWHT Typical
Yield strength, Rp0.2%:	540 N/mm2		790 N/mm2
Tensile Strength, Rm:	740 N/mm2		850 N/mm2
Elongation, A5	17%		21%
Impact energy, CV:	0°C•45 J		0°C•60 J

Classification:

Approvals:

Article

Diam.mm	Product code	Delivery form
1,2	95842012	12,5 kg PSP

Note

Specified mechanical properties are after PWHT, 580-600°Cx10 h.

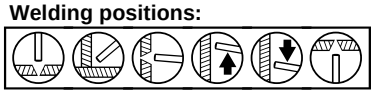
Elgacore 81CrMC

FCAW - Flux cored arc welding
Low-alloyed

Date:	1999-02-26
Revision:	5

Description:
Elgacore 81CrMC is a tubular metal-cored wire with similar weldability as Elgacore MX 100T. It welds with stable arc at low current resulting in excellent root welding characteristics. It is for welding of steels with the same composition as the wire, for example DIN 15 Mo3, BS 3059 Grade 243 and ASTM A335 Grade P1. Elgacore 81CrMC is suitable for working temperatures up to 450°C. Elgacore 81 CrMC is also suitable for ordinary C-Mn steels when higher tensile strength weld metal is required. Preheat and interpass temperature of 100-150°C is recommended. Post-weld heat treat at 620°C

Welding positions:



Welding current:
DC +

Deposition efficiency:
96%

Shielding gas:
80% Ar/20% CO2, 12-16 l/min.

Stick-out:
15-25 mm

Hydrogen content / 100 g weld metal
≤5 ml

Chemical composition, wt.%

	C	Si	Mn	P	S	Cr	Ni
Min	0.03	0.30	0.75				
Typical	0.06	0.35	1.04	0.02	0.02		
Max	0.12	0.80	1.25	0.03	0.03	0.1	0.1

	Mo	Cu	V	Nb
Min	0.40			
Typical	0.5			
Max	0.65	0.3	0.05	0.05

Mechanical properties

	Specified	Typical	PWHT Typical
Yield strength, Re:	>470 N/mm2	590 N/mm2	520 N/mm2
Tensile Strength, Rm:	>550 N/mm2	645 N/mm2	590 N/mm2
Elongation, A5	>19%	24%	26%
Impact energy, CV:	20°C•>47 J	20°C • 85 J	20°C • 85 J

Classification:

EN 758-1997	T 46 2Mo M M 1 H5
AWS A5.29-95	E 81T1-A1

Approvals:

TÜV

Article

Diam.mm	Product code	Delivery form
1,2	95911012	16 kg WBS

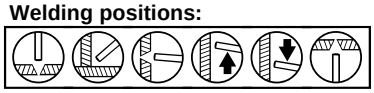
Elgacore 83CrMC

FCAW - Flux cored arc welding
Low-alloyed

Date: 2002-04-12
Revision: 3

Description:
Elgacore 83 CrMC is a metal cored wire with similar operability to Elgacore MX 100T. It runs with a stable arc at low welding currents, giving it excellent root welding characteristics. The wire is intended for welding simular composition creep sesisting steels, used in power generation plant operating at temperatures up to 570°C, eg. DIN 13 Cr Mo 44, BS 3604 Grades 620 and 621, GS-17 Cr Mo 55 etc. Preheat and interpass temperature of 150-200°C is recommended. Post-weld heat treat at 690°C

Welding positions:



Welding current:
DC+

Deposition efficiency:
96%

Shielding gas:
80% Ar / 20% CO2, 12-16 l/min.

Stick-out:
15-25 mm

Hydrogen content / 100 g weld metal
≤ 5 ml

Chemical composition, wt.%

	C	Si	Mn	P	S	Cr	Ni
Min		0.30	0.75			1.00	
Typical	0.06	0.40	1.10	0.02	0.02	1.2	
Max	0.12	0.80	1.25	0.03	0.03	1.50	0.1

	Mo	Cu	V	Nb
Min	0.40			
Typical	0.5			
Max	0.65	0.30	0.05	0.05

Mechanical properties

	Specified	Typical	PWHT Typical
Yield strength, Re:	>470 N/mm2		>580 N/mm2
Tensile Strength, Rm:	>550 N/mm2		>680 N/mm2
Elongation, A5	>19%		25%
Impact energy, CV:	20C > 47 J		20C > 60 J

Classification:
AWS A5.29 E 81T1-B2

Approvals:
TÜV

Product data

Diam.mm	Product code	Delivery form
1,2	95921012	16 kg WBS

Note

PWHT: 680 X 15H

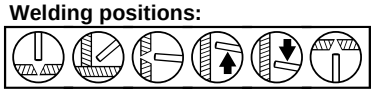
Elgacore 84CrMC

FCAW - Flux cored arc welding
Low-alloyed

Date:	1999-02-26
Revision:	2

Description:
Elgacore 84CrMC is a tubular metal-cored wire with excellent welding characteristics including stable arc at low current allowing welding of a root pass in all positions. The wire is for welding of steels with similar compositions, for example DIN 10 CrMo 9 10. The weld metal is creep resistant up to 600°C. The applications are basically the same as for Elgacore 83CrMC, but can also be used within the steam power generating industry. Post-weld heat treat at 710°C.

Welding positions:



Welding current:
DC +

Deposition efficiency:
96%

Shielding gas:
80% Ar/20% CO2, 12-16 l/min.

Stick-out:
15-25 mm

Hydrogen content / 100 g weld metal
≤5 ml

Chemical composition, wt.%

	C	Si	Mn	P	S	Cr	Ni
Min		0.30	0.75			2.00	
Typical	0.06	0.35	1.10	0.02	0.02	2.2	
Max	0.12	0.80	1.25	0.03	0.03	2.50	0.1

	Mo	Cu	V	Nb
Min	0.90			
Typical	1.0			
Max	1.20	0.2	0.05	0.05

Mechanical properties

	Specified	Typical	PWHT Typical
Yield strength, Re:	>540 N/mm2		>580 N/mm2
Tensile Strength, Rm:	>620 N/mm2		>630 N/mm2
Elongation, A5	>17%		24%
Impact energy, CV:	20C•>47 J		20C•55 J

Classification:
AWS A5.29-95 E 91T1-B3

Approvals:
TÜV

Article

Diam.mm	Product code	Delivery form
1,2	95931012	16 kg WBS

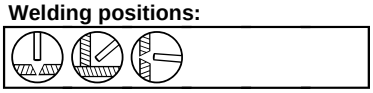
Elgacore 85CrB

FCAW - Flux cored arc welding
Low-alloyed

Date:	1999-02-26
Revision:	2

Description:
Elgacore 85CrB is a basic tubular flux-cored wire characterised by a deposit with very low hydrogen content, suitable for welding creep resistant steels containing 5% Cr and 0.5% Mo, for example DIN 12 CrMo 19 5 and ASTM A155 Grade 5Cr. The weldmetal gives excellent resistance against hydrogenattack, pressure, high temperature and good corrosion resistance in high sulphur crude oil. Elgacore 85CrB is used within the chemical and petrochemical industry. Post-weld heat treat at 840°C.

Welding positions:



Welding current:
DC +

Deposition efficiency:
88%

Shielding gas:
100% CO_2, 12-16 l/min.
80% Ar/20% CO_2, 12-16 l/min.

Stick-out:
15-25 mm

Hydrogen content / 100 g weld metal
≤5 ml

Chemical composition, wt.%

	C	Si	Mn	P	S	Cr	Ni
Min						4.0	
Typical	0.06	0.45	1.00	0.02	0.02	5.0	
Max	0.12	0.80	1.25	0.03	0.03	6.0	0.1

	Mo	Cu	V	Nb
Min	0.45			
Typical	0.50			
Max	0.85	0.2	0.05	0.05

Mechanical properties

	Specified	Typical
Yield strength, Re:	> 210 N/mm2	
Tensile Strength, Rm:	> 410 N/mm2	
Elongation, A5	> 22%	
Impact energy, CV:	–20°C•>47J	

Classification:
AWS A5.29-95 E 502 T-1 / E 502 T-2

Approvals:

Article

Diam.mm	Product code	Delivery form
1,2	95941012	16 kg WBS

Note

PWHT: 840C X 2H

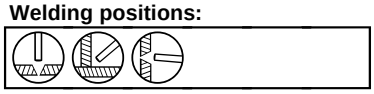
Elgacore 110B

FCAW - Flux cored arc welding
Low-alloyed

Date: 2002-04-12
Revision: 5

Description:
Elgacore 110B is a basic flux cored wire suitable for welding high-strength low-alloy steels such as Weldox 700, T1 and HY 80. It can be used with either Ar/CO2 or straight CO2 shielding gas. The wire operates with a stable arc to produce good weld bead apearance, easy slag removal and excellent fracture toughness at temperatures down to –50°C. The wire is supplied as standard on a K-300 wire basket spools.

Welding positions:



Welding current:
DC +

Deposition efficiency:
85%

Shielding gas:
100% CO2, 12-16 l/min.
80% Ar/20% CO2, 12-16 l/min.

Stick-out:
15-25 mm

Hydrogen content / 100 g weld metal
≤ 5 ml

Chemical composition, wt.%

	C	Si	Mn	P	S	Cr	Ni
Min			0.75			0.20	1.25
Typical	0.05	0.4	1.5	0.02	0.02	0.4	2.2
Max	0.15	0.8	2.25	0.03	0.03	0.60	2.60

	Mo	Cu	V	Nb
Min	0.30			
Typical	0.4		<0.02	
Max	0.65	0.2	0.05	0.05

Mechanical properties

	Specified	Typical
Yield strength, Re:	>690 N/mm²	800 N/mm²
Tensile Strength, Rm:	>760 N/mm²	860 N/mm²
Elongation, A5	>15%	17%
Impact energy, CV:	–51°C •>27 J	–51°C • 80 J

Classification:
AWS A5.29 E 110 T5 K4

Approvals:
TÜV

Product data

Diam.mm	Product code	Delivery form
1,2	95901012	16 kg WBS

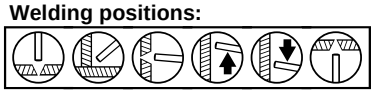
Elgacore DWA 55L

FCAW - Flux cored arc welding
Low-alloyed

Date:	1999-10-15
Revision:	10

Description:
Elgacore DWA 55L is a rutile flux cored wire designed to meet extremely high weld integrity demands in applications such as offshore fabrication. The micro-alloyed design, in combination with the 1.5% Ni alloying level, produces exceptionally good fracture toughness down to –60°C. Impact strength is tolerant to a wide range of heat-input and preheat/interpass conditions. The all-positional wire operates with a smooth but forceful arc to give very good penetration characteristics when welding horizontally, combined with high deposition rates when welding vertically up. Elgacore DWA 55L has excellent CTOD values.

Welding positions:



Welding current:
DC +

Deposition efficiency:
87%

Shielding gas:
80% Ar + 20% CO_2, 22-25 l/min

Stick-out:
15-25 mm

Hydrogen content / 100 g weld metal
≤5 ml

Chemical composition, wt.%

	C	Si	Mn	P	S	Cr	Ni
Min			0.50				1.2
Typical	0.04	0.3	1.4	0.01	0.01		1.5
Max	0.15	0.80	1.75	0.03	0.03	0.15	1.8

	Mo	Cu	V	Ti	B	Nb
Min					0.002	
Typical				0.05	0.004	
Max	0.35	0.35	0.05		0.005	0.05

Mechanical properties

	Specified	Typical
Yield strength, Re:	> 470 N/mm2	550 N/mm2
Tensile Strength, Rm:	>550 N/mm2	620 N/mm2
Elongation, A5	> 19%	27%
Impact energy, CV:	–40°C•>47 J	–60°C•75 J

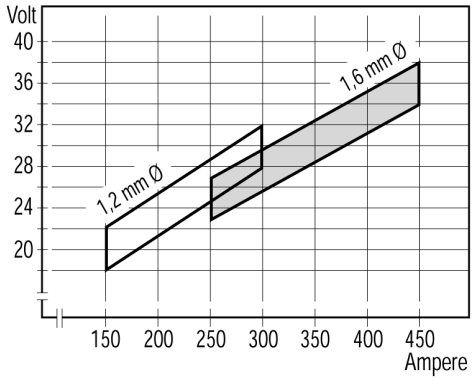
Classification:

EN 758:1997	T 46 6 1,5 Ni P M 1 H5
AWS A5.29-98	E 81T1-K2M
BS 7084-89	T 561 GPH
SFS 3328	57-6
Swedish Standard-90	SS 3834-M21

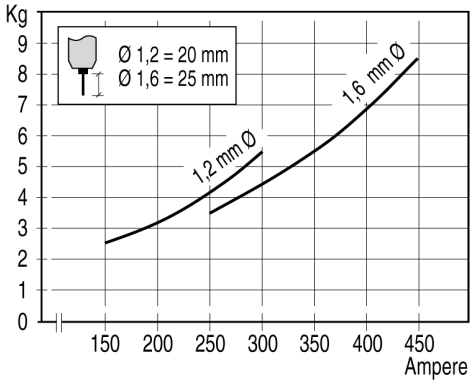
Approvals:

Force	E 51 3R(H)
ABS	3 SA, 3 YSA
GL	6 YS
DNV	IV Y40YMS, NV2-4, NV4-4
UDT	~E 80TI-K2
Inspecta	57-6
LR	5Y46 H5
MRS	5Y 42 MS HHH
CL	1238 99.02

Recommended parameter range:



Deposition rate per hour:



Article

Diam.mm	Product code	Delivery form
1,0	95612010	12,5 kg PSP
1,2	95611012	15 kg WBS
1,2	95612012	15 kg PSP
1,2	95612112	5 kg PSP
1,6	95612016	12,5 kg PSP

Note

Strip:
S ≤ 0.012%
P ≤ 0.015%
N ≤ 0.004%

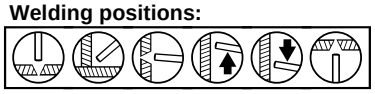
Elgacore DWA 55LSR

FCAW - Flux cored arc welding
Low-alloyed

Date:	1998-11-09
Revision:	7

Description:
Elgacore DWA 55LSR is a rutile flux cored wire producing a nominal 0.9 % Ni weld metal that tolerates PWHT without degradation of mechanical properties. It is designed to give excellent fracture toughness at temperatures down to –60°C, both in the as-welded and stress relieved condition. The wire offers exceptional all-positional operability combined with high productivity and is especially suitable for pipe welding. Elgacore DWA 55LSR fulfils NACE requirements for oil and gas production equipment in sour service and also has excellent CTOD values, making it a natural choice for offshore applications.

Welding positions:



Welding current:
DC +

Deposition efficiency:
87%

Shielding gas:
80% Ar + 20% CO2, 22-25 l/min

Stick-out:
15-25 mm

Hydrogen content / 100 g weld metal
≤5 ml

Chemical composition, wt.%

	C	Si	Mn	P	S	Cr	Ni
Min		0.2	1.05				0.8
Typical	0.06	0.3	1.3	0.010	0.005	0.015	0.9
Max	0.12	0.6	1.5	0.015	0.015		1.0

	Mo	Cu	V	Ti	B	Nb
Min					0.002	
Typical	0.01			0.05	0.004	
Max		0.20	0.05		0.005	0.05

Mechanical properties

	Specified	Typical	PWHT Typical
Yield strength, Re:	> 470 N/mm2	500 N/mm2	450 N/mm2
Tensile Strength, Rm:	> 550 N/mm2	570 N/mm2	540 N/mm2
Elongation, A5	> 22%	30%	32%
Impact energy, CV:	–46°C • > 44 J	–46°C • 95 J	–46°C • 85 J

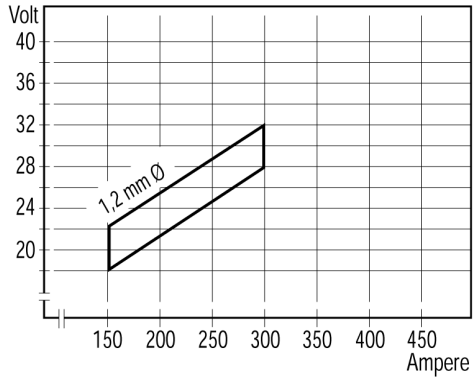
Classification:

EN 758:1997	T 46 6 1Ni P M 1 H5
AWS A5.29-80	E 81 T1-Ni1
BS 7084-89	T 561 GPH
SFS 3328	
Swedish Standard-90	

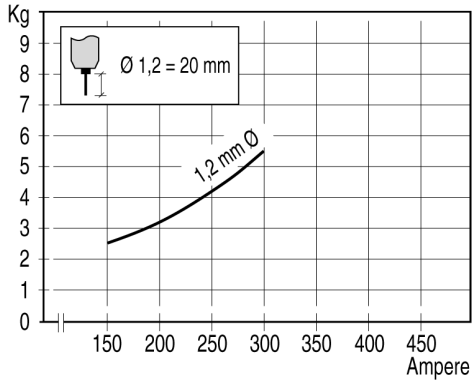
Approvals:

DNV	5YMS H5
CL	1425 99.02
LR	5Y42 H5

Recommended parameter range:



Deposition rate per hour:



Article

Diam.mm	Product code	Delivery form
1,2	95522012	15 kg PSP
1,2	95522112	5 kg PSP

Note

PWHT: 610°C +/– 10°C, 2 h.
Strip:
S ≤ 0.012%
P ≤ 0.015%
N ≤ 0.004%

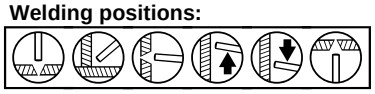
Elgacore MXA 55T

FCAW - Flux cored arc welding
Low-alloyed

Date:	1999-11-09
Revision:	10

Description:
Elgacore MXA 55T is an all-positional metal cored wire producing a 1.7% Ni alloyed weld metal with very good fracture toughness down to –60°C. It is specially designed for single-sided welding, but is equally suitable for multi-pass applications in thick plate, utilising its excellent deep penetration characteristics in the spray transfer current range. Fillet welds have a mitre profile and root runs against ceramic backing leave a smooth bead without risk of slag entrapment. The wire runs with a very stable, spatter-free arc, even under dip transfer conditions at welding currents as low as 50 A. Elgacore MXA 55T is highly suitable for offshore construction.

Welding positions:



Welding current:
DC +

Deposition efficiency:
96%

Shielding gas:
80% Ar + 20% CO2, 22-25 l/min

Stick-out:
15-25 mm

Hydrogen content / 100 g weld metal
≤5 ml

Chemical composition, wt.%

	C	Si	Mn	P	S	Cr	Ni
Min			0.50				1.00
Typical	0.06	0.4	1.4	0.014	0.017		1.7
Max	0.15	0.80	1.75	0.03	0.03	0.15	2.00

	Mo	Cu	V	Ti	B	Nb
Min						
Typical				0.05	0.004	
Max	0.35	0.20	0.05		0.005	0.05

Mechanical properties

	Specified	Typical
Yield strength, Re:	> 470 N/mm2	500 N/mm2
Tensile Strength, Rm:	>550 N/mm2	580 N/mm2
Elongation, A5	> 19%	29%
Impact energy, CV:	–40°C•>50 J	–60°C•55 J

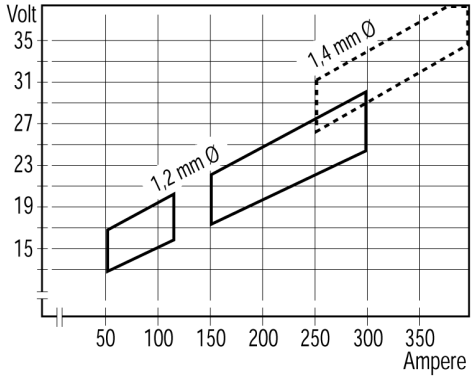
Classification:

EN 758:1997	T 46 6 1,5Ni M M 1 H5
AWS A5.28-96	E 80C-G
BS 7084-89	T 561 GMH
Swedish Standard-90	SS 3834-M21

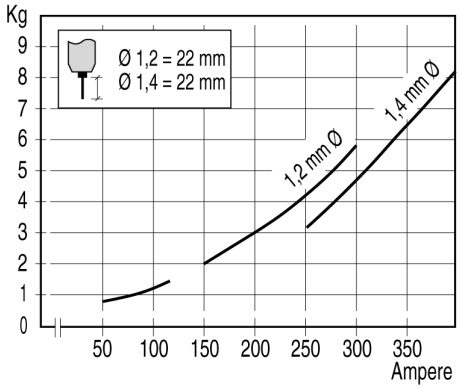
Approvals:

CL	1101 99.02
LR	3S, 3YS
ABS	3SA, 3YSA
UDT	~E 80T1-K2
BV	SA 3YM HHH
DNV	III YMS, NV2-4, NV4-4

Recommended parameter range:



Deposition rate per hour:



Article

Diam.mm	Product code	Delivery form
1,2	95661012	15 kg WBS
1,2	95662012	15 kg PSP
1,2	95662112	5 kg PSP
1,4	95662014	15 kg PSP
1,4	95662214	250 kg AutoPac

Note

Strip:
S ≤ 0.015%
P ≤ 0.025%
N ≤ 0.004%

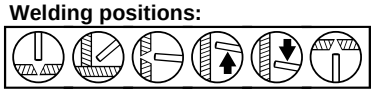
Elgacore DW 50

FCAW - Flux cored arc welding
Un-alloyed

Date:	1999-10-15
Revision:	8

Description:
Elgacore DW 50 is a rutile flux cored wire for use with a 100% CO2 gas shield. The wire is all-positional and runs with a very stable, soft arc producing excellent weld bead shape and finish with minimal spatter. The slag is easily detachable and fume emission is very low. It is suitable for welding mild and medium strength carbon manganese structural steels and produces excellent root beads on ceramic backing. Ease of use and high productivity, in combination with good mechanical properties and a weld metal hydrogen content less than 5 ml/100g, make Elgacore DW 50 an excellent general purpose cored wire where CO2 is the preferred working gas.

Welding positions:



Welding current:
DC +

Deposition efficiency:
88%

Shielding gas:
100% CO2, 22-25 l/min.

Stick-out:
15-25 mm

Hydrogen content / 100 g weld metal
≤5 ml

Chemical composition, wt.%

	C	Si	Mn	P	S	Cr	Ni
Min							
Typical	0.06	0.5	1.4	0.015	0.007		
Max	0.18	0.90	1.75	0.03	0.03	0.20	0.50

	Mo	Cu	V	Nb
Min				
Typical				
Max	0.30	0.35	0.08	0.05

Mechanical properties

	Specified	Typical
Yield strength, Re:	400 N/mm2	530 N/mm2
Tensile Strength, Rm:	480 N/mm2	590 N/mm2
Elongation, A5	> 22%	28%
Impact energy, CV:	–20°C•>47 J	–20°C•>75 J

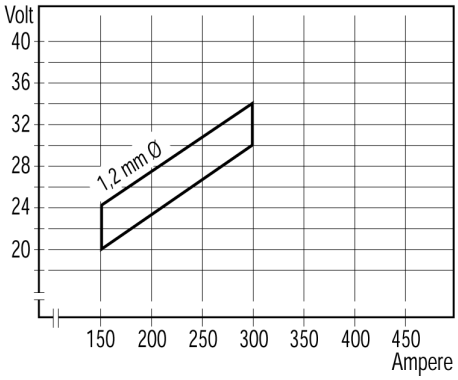
Classification:

EN 758:1997	T 42 2 P C 1 H5
AWS A5.20-95	E 71T-1/-1M
BS 7084-89	T 521 GPH
DIN 8559-84	SG R1 C Y4643

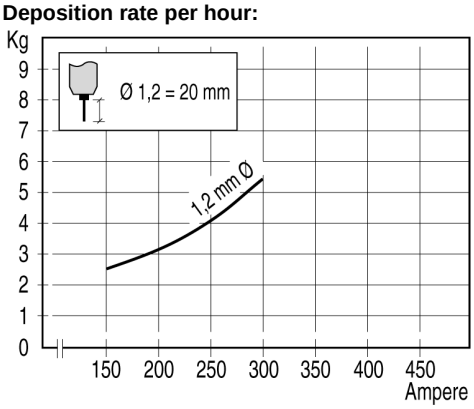
Approvals:

RINA	SG 52 3
LR	3, 3YS, H10, NA
DNV	III Y MS H10
GL	3YH 5S

Recommended parameter range:



Deposition rate per hour:



Article

Diam.mm	Product code	Delivery form
1,2	9551016	15 kg WBS
1,2	95512012	15 kg PSP
1,6	95512016	12,5 kg WBS
1,6	95512216	250 kg AutoPac

Note

Strip:
S ≤ 0.015%
P ≤ 0.025%
N ≤ 0.004%

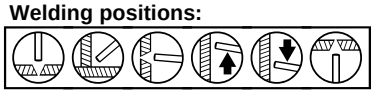
Elgacore DW 55E

FCAW - Flux cored arc welding
Un-alloyed

Date: 2002-04-19
Revision: 9

Description:
Elgacore DW 55E is a rutile flux cored wire for use with a CO2 gas shield. The weld metal is alloyed with 0.4% Ni, which gives good impact properties at –40°C. The welding properties are characterized by a stable arc and low spatter. Elgacore DW 55E is recommended for high integrity fabrication of medium to heavy sections within structural steel work, shipbuilding and pipelines.

Welding positions:



Welding current:
DC +

Deposition efficiency:
85%

Shielding gas:
100% CO2, 22-25 l/min.

Stick-out:
15-25 mm

Hydrogen content / 100 g weld metal
≤ 5 ml

Chemical composition, wt.%

	C	Si	Mn	P	S	Cr	Ni
Min							
Typical	0.05	0.4	1.5	0.014	0.008		0.3
Max	0.18	0.90	1.75	0.03	0.03	0.20	0.50

	Mo	Cu	V	Nb
Min				
Typical				
Max	0.3	0.35	0.08	0.08

Mechanical properties

	Specified	Typical
Yield strength, Re:	400 N/mm2	540 N/mm2
Tensile Strength, Rm:	480 N/mm2	600 N/mm2
Elongation, A5	> 22%	29%
Impact energy, CV:	-20°C•> 47 J	-40°C•50 J

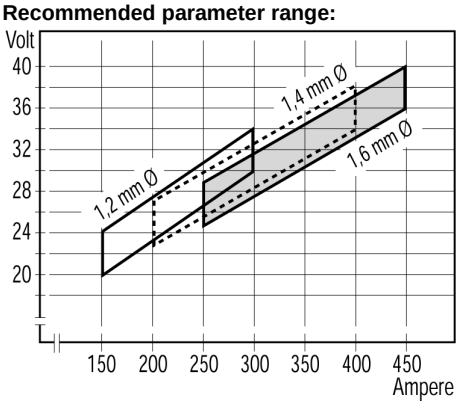
Classification:

EN 758	T 42 4 P C 1 H5
AWS A5.20	E 71T-9J
BS 7084	T 531 GRH
DIN 8559	SG R1 C Y4654
Swedish Standard-90	SS 3832-C1

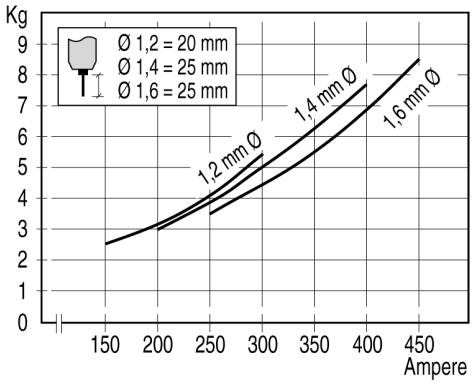
Approvals:

GL	3YS
ABS	3SA, 3YSA
UDT	E 71T-1
BV	3, 3Y
LR	3S, 3YS, CMnLT40
MRS	3Y 40 MS HH
DNV	III YMS

Recommended parameter range:



Deposition rate per hour:



Product data

Diam.mm	Product code	Delivery form
1,2	95561012	15 kg WBS
1,2	95562012	15 kg PSP
1,4	95562014	15 kg PSP
1,6	95562016	12,5 kg PSP

Note

Strip:
S ≤ 0.015%
P ≤ 0.025%
N ≤ 0.004%

Elgacore DW 588

FCAW - Flux cored arc welding

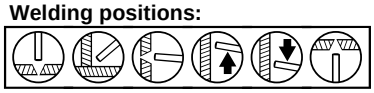
Un-alloyed

Date:	1998-11-09
Revision:	9

Description:

Elgacore DW 588 is a rutile flux cored wire for use with a CO2 gas shield and deposits a 0.5% Ni / 0.5% Cr / 0.4% Cu weld metal designed for welding weather-resisting steels similar to Cor-Ten. The weld metal also resists preferential corrosion in seawater. Elgacore DW 588 is all-positional and runs with a very stable, smooth arc. The combination of negligible spatter, easily detached slag and smooth bead finish minimises the need for post-weld dressing and contributes to increased productivity.

Welding positions:



Welding current:

DC +

Deposition efficiency:

87%

Shielding gas:

CO2, 22-25 l/min

Stick-out:

15-25 mm

Hydrogen content / 100 g weld metal

≤5 ml

Chemical composition, wt.%

	C	Si	Mn	P	S	Cr	Ni
Min		0.35	0.50			0.45	0.4
Typical	0.04	0.6	1.2	0.014	0.01	0.5	0.5
Max	0.12	0.80	1.30	0.03	0.03	0.70	0.80

	Cu	V	Nb
Min	0.30		
Typical	0.4		
Max	0.75	0.05	0.05

Mechanical properties

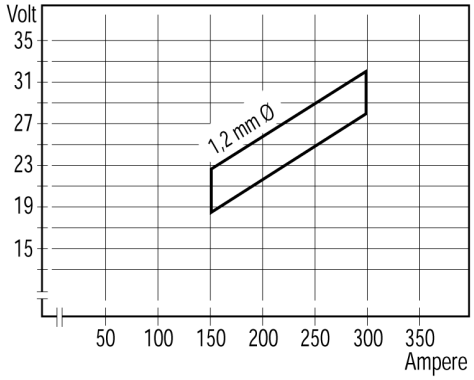
	Specified	Typical
Yield strength, Re:	> 470 N/mm2	530 N/mm2
Tensile Strength, Rm:	>550 N/mm2	610 N/mm2
Elongation, A5	> 19%	26%
Impact energy, CV:	–30°C•> 27 J	–30°C•40 J

Classification:

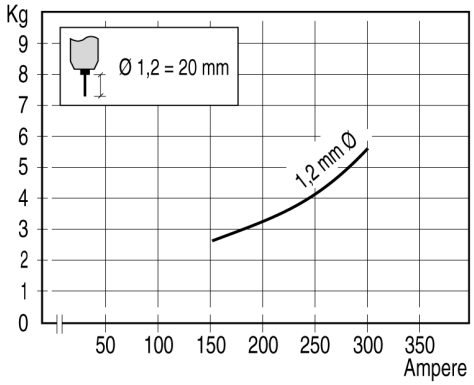
EN 758:1997	T 42 0 P C 1 H5
AWS A5.29-80	~E 80T1-W
BS 7084-89	T 501 GPH
Swedish Standard-90	SS 3830-C1

Approvals:

Recommended parameter range:



Deposition rate per hour:



Article

Diam.mm	Product code	Delivery form
1,2	95582012	15 kg PSP

Note

Strip:
S ≤ 0.012%
P ≤ 0.015%
N ≤ 0.004%
AWS: Deviation in welding positions.

Elgacore DWA 50

FCAW - Flux cored arc welding

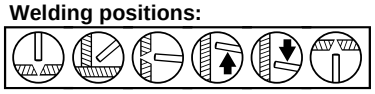
Un-alloyed

Date:	1999-10-15
Revision:	11

Description:

Elgacore DWA 50 is a rutile flux cored wire for use with an Ar/CO2 gas shield. The wire is all-positional and runs with a very stable, soft arc producing excellent weld bead shape and finish with negligible spatter. The slag is easily detachable and fume emission is very low. It is suitable for welding mild and medium strength carbon manganese structural steels and produces excellent root beads on ceramic backing. Ease of use and high productivity, in combination with good mechanical properties and a weld metal hydrogen content less than 5 ml/100g, make Elgacore DWA 50 an extremely versatile general purpose cored wire.

Welding positions:



Welding current:

DC +

Deposition efficiency:

88%

Shielding gas:

80% Ar + 20% CO2, 22-25 l/min

Stick-out:

15-25 mm

Hydrogen content / 100 g weld metal

≤5 ml

Chemical composition, wt.%

	C	Si	Mn	P	S	Cr	Ni
Min							
Typical	0.06	0.4	1.2	0.015	0.007		
Max	0.18	0.90	1.75	0.03	0.03	0.20	0.50

	Mo	Cu	V	Nb
Min				
Typical				
Max	0.30	0.35	0.08	0.08

Mechanical properties

	Specified	Typical
Yield strength, Re:	400 N/mm2	520 N/mm2
Tensile Strength, Rm:	480 N/mm2	590 N/mm2
Elongation, A5	> 22%	28%
Impact energy, CV:	–20°C•> 47 J	–20°C•75 J

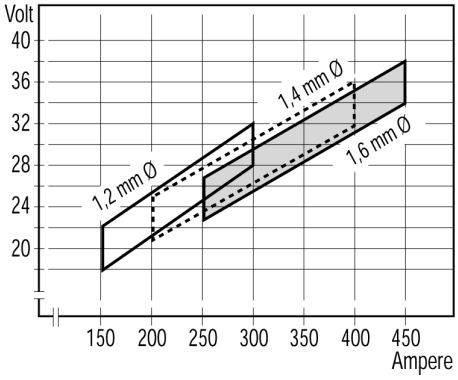
Classification:

EN 758:1997	T 42 2 P M 1 H5
AWS A5.20-95	E 71T-1M
BS 7084-89	T 521 GPH
DIN 8559-84	SG R1 M2 Y4643
NF A81-350-86	TGS 51.31H

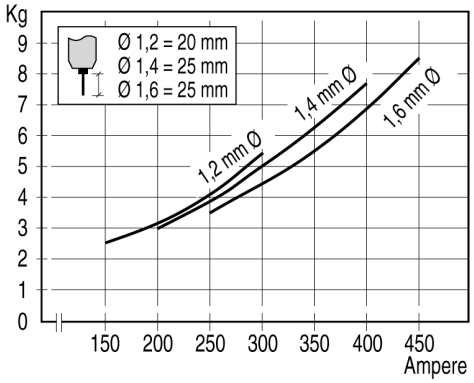
Approvals:

CL	0783 99.02
RINA	SG 52 3
DNV	III YMS
UDT	SG R1 M2 Y4643
Force	E 51 3R(H)
DB	Kennblatt Nr. 42.042.09
ABS	2SA, 2YSA
BV	SA 3YM
LR	3S, 3YS
MRS	3Y 40 MS HHH
TÜV	SGRI M21 Y4633
GL	3 YS
Inspecta	51-3

Recommended parameter range:



Deposition rate per hour:



Article

Diam.mm	Product code	Delivery form
1,2	95601012	15 kg WBS
1,2	95602012	15 kg PSP
1,2	95602112	5 kg PSP
1,2	95602212	250 kg AutoPac
1,4	95602014	15 kg PSP
1,4	95602214	250 kg AutoPac
1,6	95602016	12,5 kg PSP
1,6	95602316	200 kg AutoPac

Note

Strip:
S ≤ 0.015%
P ≤ 0.025%
N ≤ 0.004%

Elgacore DWA 51B

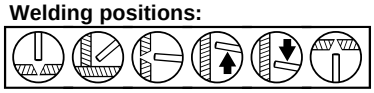
FCAW - Flux cored arc welding
Un-alloyed

Date:	2003-06-13
Revision:	10

Description:
Elgacore DWA 51B is a basic flux cored wire with excellent operating characteristics and is suitable for steels with a tensile strength up to 600 N/mm2. It produces weld metal with superior crack resistance under difficult conditions of high restraint and exhibits good low temperature fracture toughness. Weld deposit hydrogen levels are typically 3 ml/100 g. Elgacore DWA 51B welds with a stable arc and gives high deposition rates with low spatter levels in the flat and horizontal-vertical positions.

Applications:
Recommended for multipass welding of medium to heavy section carbon-manganese steels used for shipbuilding, bridge construction and heavy plant.

Welding positions:



Welding current:
DC -/+

Deposition efficiency:
86%

Shielding gas:
80% Ar + 20% CO2, 22-25 l/min

Stick-out:
15-25 mm

Hydrogen content / 100 g weld metal
≤ 5 ml

Chemical composition, wt.%

	C	Si	Mn	P	S	Cr	Ni
Min							
Typical	0.08	0.5	1.5	0.015	0.008		
Max	0.18	0.90	1.75	0.03	0.03	0.20	0.50

	Mo	Cu	V	Nb
Min				
Typical				
Max	0.30	0.35	0.08	0.08

Mechanical properties

	Specified	Typical	PWHT Typical
Yield strength, Re:	400 N/mm²	490 N/mm²	420 N/mm²
Tensile Strength, Rm:	480 N/mm²	600 N/mm²	530 N/mm²
Elongation, A5	> 22%	30%	28%
Impact energy, CV:	–30°C • > 47 J	–20°C • 100 J	–20°C • 100 J

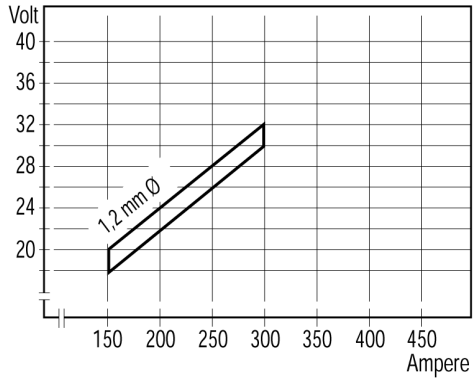
Classification:

EN 758	T 42 2 B M 1 H5
AWS A5.20	E 71T-5MJ
BS 7084	T 520 GBH
DIN 8559	SG B1 M2 Y4254
Swedish Standard-90	SS 3831-M21

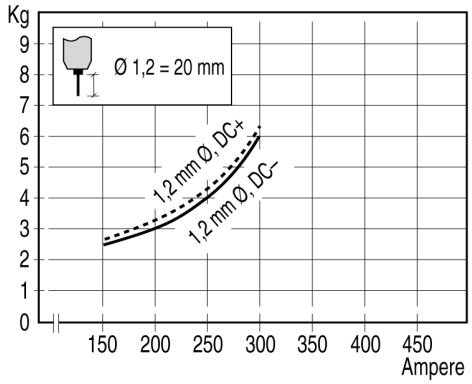
Approvals:

LR	3YS
DNV	III YMS
UDT	SG B1 M2 Y4254
Force	E 51 5B(H)
BV	SA 3YM HH
DB	Kennblatt Nr. 42.042.07
GL	3Y HHS
TÜV	SG B1 M21 Y4254
RINA	SG 52 3

Recommended parameter range:



Deposition rate per hour:



Product data

Diam.mm	Product code	Delivery form
1,2	95571012	15 kg WBS
1,2	95572012	15 kg PSP
1,2	95572112	5 kg PSP
1,2	95572212	250 kg AutoPac
1,6	95572016	12,5 kg PSP

Note

Welding current: DC- is recommended.
PWHT: SR at 580°C, 2h.
Strip:
S ≤ 0.012%
P ≤ 0.015%
N ≤ 0.004%

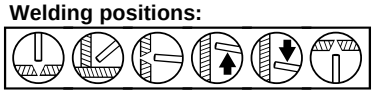
Elgacore DWA 55E

FCAW - Flux cored arc welding
Un-alloyed

Date: 2002-04-19
Revision: 15

Description:
Elgacore DWA 55E is a rutile flux cored wire for use with an Ar/CO2 gas shield and deposits a 0.4% Ni alloyed weld metal designed to meet requirements for very good fracture toughness at temperatures down to –40°C. The wire has excellent welding characteristics in all positions and very low fume emission. With its good weld metal ductility and hydrogen content of around 5 ml/100 g, Elgacore DWA 55E is recommended for high integrity fabrication of medium to heavy sections in structural steelwork, shipbuilding and pipeline construction.

Welding positions:



Welding current:
DC +

Deposition efficiency:
87%

Shielding gas:
80% Ar + 20% CO2, 22-25 l/min

Stick-out:
15-25 mm

Hydrogen content / 100 g weld metal
≤ 5 ml

Chemical composition, wt.%

	C	Si	Mn	P	S	Cr	Ni
Min							
Typical	0.05	0.5	1.3	0.015	0.008		0.4
Max	0.18	0.90	1.75	0.03	0.03	0.20	0.5

	Mo	Cu	V	Nb
Min				
Typical				
Max	0.3	0.35	0.08	0.08

Mechanical properties

	Specified	Typical
Yield strength, Re:	400 N/mm²	570 N/mm²
Tensile Strength, Rm:	480 N/mm²	630 N/mm²
Elongation, A5	> 22%	27%
Impact energy, CV:	–40°C • >47 J	–40°C • 80 J

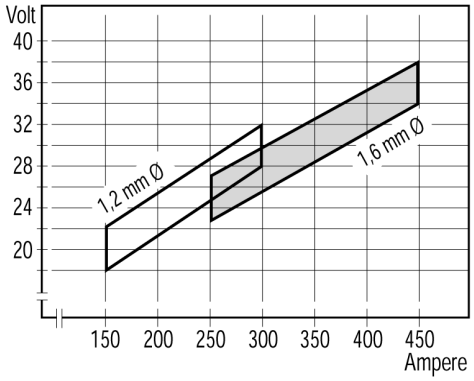
Classification:

EN 758	T 42 4 P M 1 H5
AWS A5.20	E 71T-9MJ
BS 7084	T 541 GPH
DIN 8559	SG R1 M2 Y4655
NF A81-350-86	TGS 51.4.1H

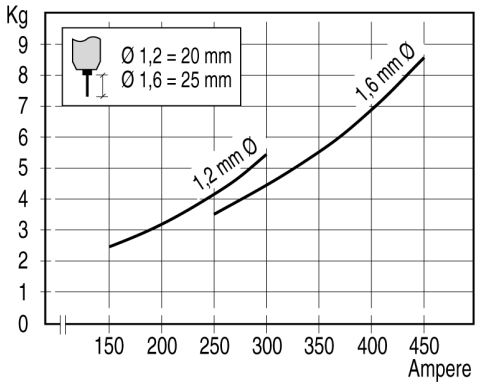
Approvals:

Force	T 42 4 P M 1H5
LR	3S, 4Y40S, H5
Inspecta	51-5
DB	Kennblatt Nr. 42.042.06
TÜV	SG R1 M21 Y 4655
UDT	SG R1 M2 Y4655
CL	0353 99.02
BV	SA 3YM
RINA	SG 52 3
DNV	IV YMS (H5)
MRS	4Y 42 MS HHH

Recommended parameter range:



Deposition rate per hour:



Product data

Diam.mm	Product code	Delivery form
1,2	95641012	15 kg WBS
1,2	95642012	15 kg PSP
1,2	95642112	5 kg PSP
1,2	95642212	250 kg AutoPac
1,6	95642016	12,5 kg PSP

Note

Strip:
S ≤ 0.015%
P ≤ 0.025%
N ≤ 0.004%

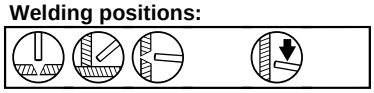
Elgacore DWA 52F

FCAW - Flux cored arc welding
Un-alloyed

Date:	1999-10-15
Revision:	5

Description:
Elgacore DWA 52F is a rutile flux cored wire especially designed for welding standing fillets (2F/PB), and produces beautiful smooth weld beads. This wire operates with a soft but deep penetrating arc which produces negligible spatter loss combined with easy slag removal.

Welding positions:



Welding current:
DC +

Deposition efficiency:
90%

Shielding gas:
80% Ar + 20% CO_2, 22-25 l/min.

Stick-out:
15-25 mm

Hydrogen content / 100 g weld metal
≤5 ml

Chemical composition, wt.%

	C	Si	Mn	P	S	Cr	Ni
Min							
Typical	0.05	0.54	1.35	0.012	0.007		
Max	0.18	0.90	1.75	0.03	0.03	0.20	0.50

	Mo	Cu	V	Nb
Min				
Typical				
Max	0.30	0.35	0.08	0.08

Mechanical properties

	Specified	Typical
Yield strength, Re:	400 N/mm2	500 N/mm2
Tensile Strength, Rm:	480 N/mm2	590 N/mm2
Elongation, A5	> 22%	30%
Impact energy, CV:	–20°C• >47J	–20°C• 65J

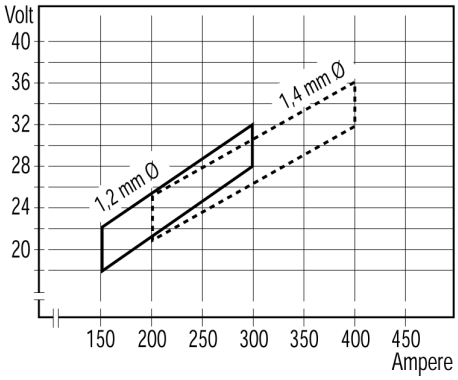
Classification:

EN 758:1997	T 42 2 R M 1 H5
AWS A5.20-95	E71T-1M

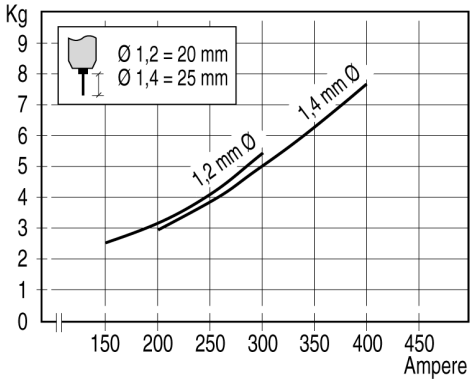
Approvals:

GL	3Y40 SH5
LR	3Y 40S H5
DNV	IIIY 40S H5

Recommended parameter range:



Deposition rate per hour:



Article

Diam.mm	Product code	Delivery form
1,2	95501012	15 kg WBS
1,2	95502012	15 kg PSP
1,4	95502014	15 kg PSP
1,4	95502214	250 kg AutoPac

Note

Strip:
S ≤ 0.015%
P ≤ 0.025%
N ≤ 0.004%

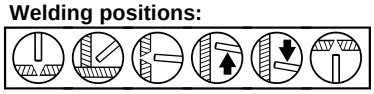
Elgacore DWX 50

FCAW - Flux cored arc welding
Un-alloyed

Date: 2002-04-19
Revision: 4

Description:
Elgacore DWX 50 is a rutile flux cored wire for use with an Ar/CO2 or straight CO2 gas shield. Elgacore DWX 50 is mainly developed for welding on thinner materials where low current and small fillets are required. The wire is all-positional and runs with a very stable, soft arc producing excellent weld bead shape and finish with negligible spatter. The slag is easily detachable and fume emission is very low. It is suitable for welding mild and medium strength carbon manganese structural steels and produces excellent root beads on ceramic backing. Ease of use and high productivity, in combination with good mechanical properties and a weld metal hydrogen content less than 5 ml/100g, makes Elgacore DWX 50 an extremely versatile cored wire for material thicknesses down to 5mm.

Welding positions:



Welding current:
DC +

Deposition efficiency:
88%

Shielding gas:
100% CO2, 22-25 l/min
80% Ar+20% CO2, 22-25 l/min

Stick-out:
15-25 mm

Hydrogen content / 100 g weld metal
≤ 5 ml

Chemical composition, wt.%

	C	Si	Mn	P	S	Cr	Ni
Min							
Typical	0.06	0.5	1.4	0.015	0.007		
Max	0.18	0.90	1.75	0.03	0.03	0.20	0.50

	Mo	Cu	V	Nb
Min				
Typical				
Max	0.30	0.35	0.08	0.08

Mechanical properties

	Specified	Typical
Yield strength, Re:	420 N/mm²	540 N/mm²
Tensile Strength, Rm:	530 N/mm²	600 N/mm²
Elongation, A5	>22%	28%
Impact energy, CV:	–18°C • >27 J	–20°C • >75 J

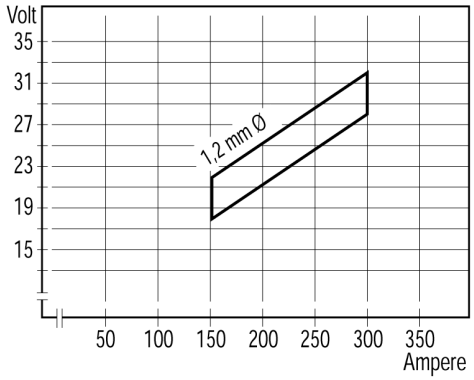
Classification:

EN 758	T 42 2 P C 1 H5
EN 758	T 42 2 P M 1 H5
AWS A5.20	E 71T-1/-1M
BS 7084	T 521 GPH
DIN 8559	SG R1 C Y4643

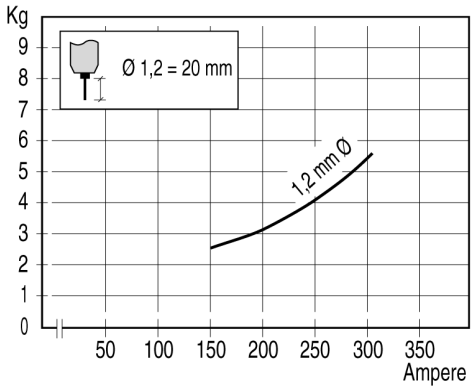
Approvals:

RINA	SG 52 3
GL	3YH5S
DNV	3YMS (H5)
LR	3S 3YS H5

Recommended parameter range:



Deposition rate per hour:



Product data

Diam.mm	Product code	Delivery form
1,2	95871012	15 kg WBS
1,2	95872012	15 kg PSP

Note

Strip:
S ≤ 0.015%
P ≤ 0.025%
N ≤ 0.004%

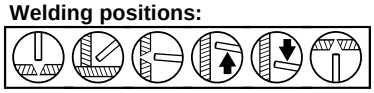
Elgacore MCA 422

FCAW - Flux cored arc welding
Un-alloyed

Date: 2001-10-04
Revision: 4

Description:
Elgacore MCA 422 is a metal cored wire for use with an Ar/CO2 gas shield, designed primarily for high productivity welding in the horizontal and horizontal-vertical positions. The wire runs with a stable, low spatter and deep penetrating arc. The slag produced is of a very low level, similar to that from a solid wire and inter-run deslagging is not necessary. Elgacore MCA 422 produces a very low hydrogen weld metal and good mechanical properties. Suitable for general fabrication and structural steels.

Welding positions:



Welding current:
DC +

Deposition efficiency:
95%

Shielding gas:
80% Ar + 20% CO2, 22-25 l/min

Stick-out:
15-25 mm

Hydrogen content / 100 g weld metal
≤ 4 ml

Chemical composition, wt.%

	C	Si	Mn	P	S
Min					
Typical	0.03	0.70	1.55	0.012	0.015
Max	0.08	0.9	1.75	0.025	0.025

Mechanical properties

	Specified	Typical
Yield strength, Re:	400 N/mm²	510 N/mm²
Tensile Strength, Rm:	480 N/mm²	600 N/mm²
Elongation, A5	> 22%	27%
Impact energy, CV:	–29°C • >27 J	–29°C • 55 J

Classification:

EN 758	T 42 2 M M 1 H5
AWS A5.18	E70C-6M H4

Approvals:

BV	SA3YM
GL	3Y40H5S
ABS	Pending
DnV	III Y40MS
RINA	Pending

Product data

Diam.mm	Product code	Delivery form
1.2	96621012	15 kg WBS
1.2	96622112	4.5 kg PSP

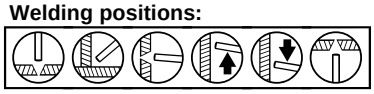
Elgacore MX 100T

FCAW - Flux cored arc welding
Un-alloyed

Date: 2003-03-07
Revision: 14

Description:
Elgacore MX 100T is a metal cored wire for use with a CO2 or Ar/CO2 gas shield, specially designed for single-sided welding of thinner section material. The wire is all-positional and runs with a very stable, spatter-free arc even under dip transfer conditions at welding currents as low as 50 A. Root passes normally made with the TIG or MMA process can be carried out with Elgacore MX 100T to give significantly increased productivity, making the wire particularly suitable for pipe welding. Elgacore MX 100T has good notch toughness properties down to –30°C and is recommended for general fabrication and structural steel work.

Welding positions:



Welding current:
DC +

Deposition efficiency:
96%

Shielding gas:
CO2, 22-25 l/min
80% Ar + 20% CO2, 22-25 l/min

Stick-out:
15-25 mm

Hydrogen content / 100 g weld metal
≤ 5 ml

Chemical composition, wt.%

	C	Si	Mn	P	S	Cr	Ni
Min							
Typical	0.07	0,5	1,5	0.015	0,014		
Max	0.18	0.90	1.75	0.03	0.03	0.20	0.50

	Mo	Cu	V	Nb
Min				
Typical				
Max	0.30	0.35	0.08	0.08

Mechanical properties

	Specified	Typical
Yield strength, Re:	400 N/mm²	450 N/mm²
Tensile Strength, Rm:	480 N/mm²	570 N/mm²
Elongation, A5	> 22%	29%
Impact energy, CV:	–20°C • >47 J	–20°C • 90 J
	–29°C • >27 J	–29°C • 60 J

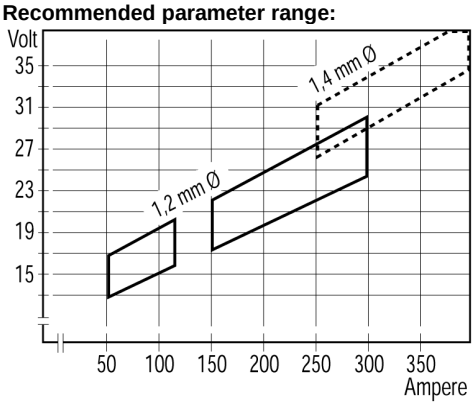
Classification:

EN 758	T 42 2 M C 1 H5
EN 758	T 42 2 M M 1 H5
AWS A5.18	E 70C-6M/-6C
BS 7084	T 521 GMH
SFS 3328	51-3

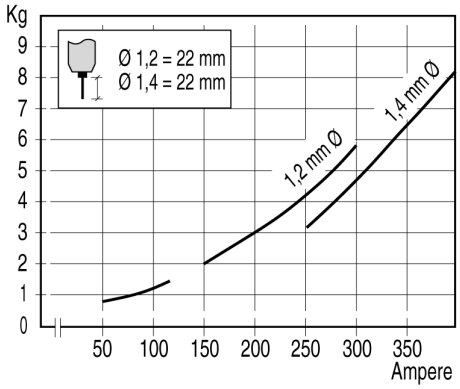
Approvals:

GL	3YH5S
Force	E51 3M(H)
LR	3S,3YS
Inspecta	51-3
DNV	III YMS
BV	SA 3YM HH
RINA	SG 52 3
TÜV	07701.00
CL	0812 99.02
MRS, UDT	
DB	042.42.11

Recommended parameter range:



Deposition rate per hour:



Product data

Diam.mm	Product code	Delivery form
1,2	95651012	15 kg WBS
1,2	95652012	20 kg PSP
1,2	95652112	5 kg PSP
1,2	95652212	250 kg AutoPac
1,4	95652014	20 kg PSP
1,4	95652214	250 kg AutoPac

Note

Strip:
S ≤ 0.015%
P ≤ 0.025%
N ≤ 0.004%

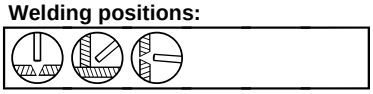
Elgacore MX 200

FCAW - Flux cored arc welding
Un-alloyed

Date:	1999-10-15
Revision:	10

Description:
Elgacore MX 200 is a rutile flux cored wire for use with a CO2 gas shield. It has a relatively high iron powder content and is specially designed for high speed fillet welding of plate coated with modern inorganic zinc primers. The wire operates with a very stable arc to produce a slightly convex fillet profile, smooth bead surface, minimum spatter and excellent slag detachability. The combination of high deposition efficiency and excellent resistance to porosity at high travel speeds makes Elgacore MX 200 ideal for mechanised welding of standing fillets.

Welding positions:



Welding current:
DC +

Deposition efficiency:
89%

Shielding gas:
100% CO2, 22-25 l/min

Stick-out:
15-25 mm

Hydrogen content / 100 g weld metal
≤5 ml

Chemical composition, wt.%

	C	Si	Mn	P	S	Cr	Ni
Min							
Typical	0.06	0.5	1.6	0.016	0.008		
Max	0.18	0.90	1.75	0.03	0.03	0.20	0.50

	Mo	Cu	V	Nb
Min				
Typical				
Max	0.30	0.35	0.08	0.05

Mechanical properties

	Specified	Typical
Yield strength, Re:	400 N/mm2	500 N/mm2
Tensile Strength, Rm:	480 N/mm2	580 N/mm2
Elongation, A5	> 22%	28%
Impact energy, CV:	-18°C•>27 J	0°C•50 J

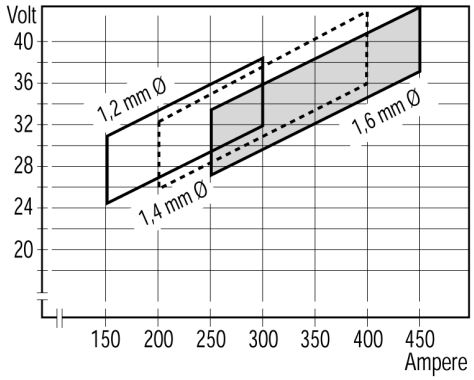
Classification:

EN 758:1997	T 42 0 R C3 H5
AWS A5.20-95	E 70T-1
BS 7084-89	T 520 GRH
DIN 8559-84	SG R1 C Y4633
Swedish Standard-90	SS 3831-C1

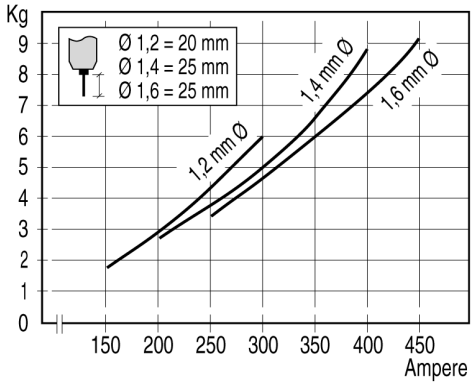
Approvals:

BV	2A 2YM HHH
SVK	SS 3812
DNV	II YMS
LR	2S, 2YS
ABS	2SA, 2YSA
UDT	E 71T-1
MRS	2 Y 40 MS HHH
GL	3 YS
Inspecta	51-3
Force	E51 2R(H)

Recommended parameter range:



Deposition rate per hour:



Article

Diam.mm	Product code	Delivery form
1,2	95691012	15 kg WBS
1,2	95692012	20 kg PSP
1,2	95692212	250 kg AutoPac
1,4	95692014	20 kg PSP
1,4	95692214	250 kg AutoPac
1,6	95692016	20 kg PSP

Note

Strip:
S ≤ 0.03%
P ≤ 0.03%
N ≤ 0.004%

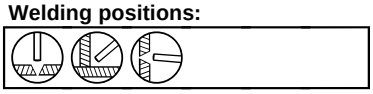
Elgacore MXA 100

FCAW - Flux cored arc welding
Un-alloyed

Date: 2002-07-05
Revision: 16

Description:
Elgacore MXA 100 is a metal cored wire for use with an Ar/CO2 gas shield, designed for high productivity welding in the horizontal and horizontal-vertical positions. The wire runs with a stable, low spatter and deep penetrating arc. The slag produced is of a very low level, similar to that from a solid wire and inter-run deslagging is not necessary. Combined with a highly reliable arc-start, these characteristics make Elagacore MXA 100 an ideal choice for robotic or mechanised welding. Elgacore MXA 100 produces a very low hydrogen weld metal and good mechanical properties. Suitable for general fabrication and structural steels.

Welding positions:



Welding current:
DC +

Deposition efficiency:
96%

Shielding gas:
80% Ar + 20% CO2, 22-25 l/min

Stick-out:
15-25 mm

Hydrogen content / 100 g weld metal
≤ 5 ml

Chemical composition, wt.%

	C	Si	Mn	P	S	Cr	Ni
Min							
Typical	0.05	0.75	1.55	0.011	0.009		
Max	0.18	0.90	1.75	0.03	0.03	0.20	0.50

	Mo	Cu	V	Nb
Min				
Typical				
Max	0.30	0.35	0.08	0.08

Mechanical properties

	Specified	Typical
Yield strength, Re:	400 N/mm²	460 N/mm²
Tensile Strength, Rm:	480 N/mm²	555 N/mm²
Elongation, A5	> 22%	30%
Impact energy, CV:	–20°C • >47 J	–20°C • 95 J
	–29°C • >27 J	–29°C • 80 J
	–40°C • >47 J	–40°C • 65 J

Classification:

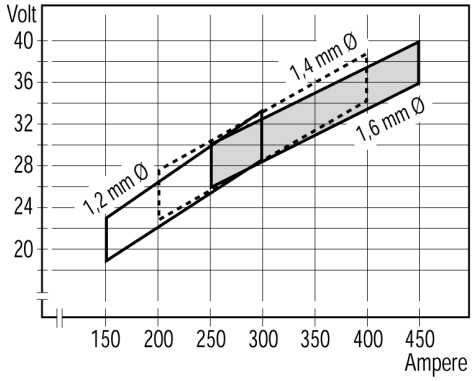
EN 758	T 42 4 M M 3 H5
AWS A5.18	E 70C-6M
BS 7084	T 520 GMH
NF A81-350-86	TGS 51.23 BH
SFS 3328	51-3

Approvals:

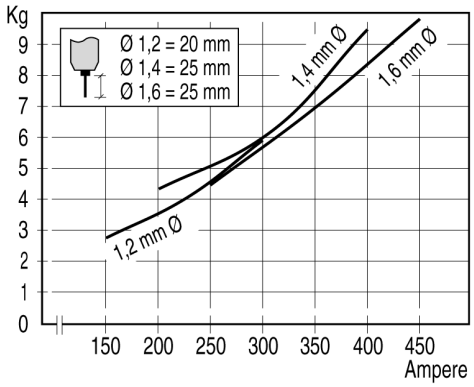
BV	SA 3YM
UDT	E 70T-1
GL	3YS
MOD (Navy)	MS 25 mm
CL	1264 99.02
DNV	III YMS
LR	3S, 3YS
MRS	3Y 40 MS HHH
TÜV	Kennblatt Nr. 07657.00
DB	Kennblatt Nr. 42.042.10

ABS, Inspecta, Force

Recommended parameter range:



Deposition rate per hour:



Product data

Diam.mm	Product code	Delivery form
1,2	95621012	15 kg WBS
1,2	95622012	20 kg PSP
1,2	95622112	5 kg PSP
1,2	95622212	250 kg AutoPac
1,4	95621014	15 kg WBS
1,4	95622014	20 kg PSP
1,4	95622214	250 kg AutoPac
1,6	95622016	20 kg PSP
1,6	95622216	250 kg AutoPac

Note

Strip:
S ≤ 0.015%
P ≤ 0.025%
N ≤ 0.004%

Elgacore MXX 100

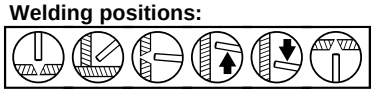
FCAW - Flux cored arc welding
Un-alloyed

Date: 2003-03-07
Revision: 7

Description:
Elgacore MXX 100 is a fully positional metal cored wire for use with Ar/CO2 or CO2 shielding gas. Specially designed for manual or mechanised welding of thinner-to-medium section material. Excellent welding characteristics with a spatter-free arc, producing little slag and offering good resistance to porosity. Elgacore MXX 100 combines ease of use, high productivity and good mechanical properties down to -30°C. Superior wire feeding and a weld hydrogen content less than 5 ml/100g. Suitable for welding mild and medium strength carbon manganese structural steels.

Applications:
Applications include general fabrication, structural steelwork, bridge building and shipbuilding.

Welding positions:



Welding current:
DC +

Deposition efficiency:
96%

Shielding gas:
CO2, 22-25 l/min
80% Ar + 20% CO2, 22-25 l/min

Stick-out:
15-25 mm

Hydrogen content / 100 g weld metal
≤ 5 ml

Chemical composition, wt.%

	C	Si	Mn	P	S	Cr	Ni
Min							
Typical	0,07	0,5	1,5	0.015	0.014		
Max	0.18	0.90	1.75	0.03	0.03	0.20	0,5

	Mo	Cu	V	Nb
Min				
Typical				
Max	0.30	0.35	0.08	0.08

Mechanical properties

	Specified	Typical
Yield strength, Re:	> 400 N/mm²	450 N/mm²
Tensile Strength, Rm:	> 480 N/mm²	570 N/mm²
Elongation, A5	> 22%	29%
Impact energy, CV:	–20°C • >47 J	–20°C • 90 J
	–29°C • >27 J	–29°C • 60 J

Classification:

EN 758	T 42 2 M M 1 H5
EN 758	T 42 2 M C 1 H5
AWS A.5.18	E 70C-6M/-6C
BS 7084	T 521 GMH
SFS 3328	51-3

Approvals:

DNV	3YMS H5
GL	3H5S
LR	3Y,3YS
DB	042.42.12
TÜV	012020

Product data

Diam.mm	Product code	Delivery form
1,2	95551012	15 kg WBS
1,2	95552012	20 kg PSP
1,2	95552112	5 kg PSP
1,2	95552212	250 kg AutoPac
1,4	95552014	20 kg PSP
1,4	95552214	250 kg AutoPac

Note

Strip:
S ≤ 0.015%
P ≤ 0.025%
N ≤ 0.004%

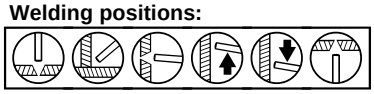
Elgacore RFA 422

FCAW - Flux cored arc welding
Un-alloyed

Date: 2001-10-04
Revision: 7

Description:
Elgacore RFA 422 is a rutile flux cored wire for use with an Ar/CO2 gas shield. The wire is all-positional and runs with a very stable, soft arc producing excellent weld bead shape and finish with negligible spatter. The slag is easily detachable and fume emission is very low. It is suitable for welding mild and medium strength carbon manganese structural steels and produces excellent root beads on ceramic backing. Ease of use and high productivity, in combination with good mechanical properties , make Elgacore RFA 422 an extremely versatile general purpose cored wire.

Welding positions:



Welding current:
DC +

Deposition efficiency:
86%

Shielding gas:
80% Ar + 20% CO2, 22-25 l/min

Stick-out:
15-25 mm

Hydrogen content / 100 g weld metal
≤ 5 ml

Chemical composition, wt.%

	C	Si	Mn	P	S
Min					
Typical	0.06	0.26	1.04	0.011	0.014
Max	0.18	0.90	1.75	0.025	0.025

Mechanical properties

	Specified	Typical
Yield strength, Re:	400 N/mm²	510 N/mm²
Tensile Strength, Rm:	480 N/mm²	570 N/mm²
Elongation, A5	> 22%	29%
Impact energy, CV:	–20°C • > 47 J	–20°C • 90 J

Classification:

EN 758	T 42 2 P M 1 H5
AWS A5.20	E 71T-1M

Approvals:

ABS	Pending
DnV	III Y40MS
Lloyds	3S, 3YS
BV	SA3YM
GL	3Y40H10S
RINA	Pending

Product data

Diam.mm	Product code	Delivery form
1.2	96601012	15 kg WBS
1.2	96602112	4.5 kg PSP