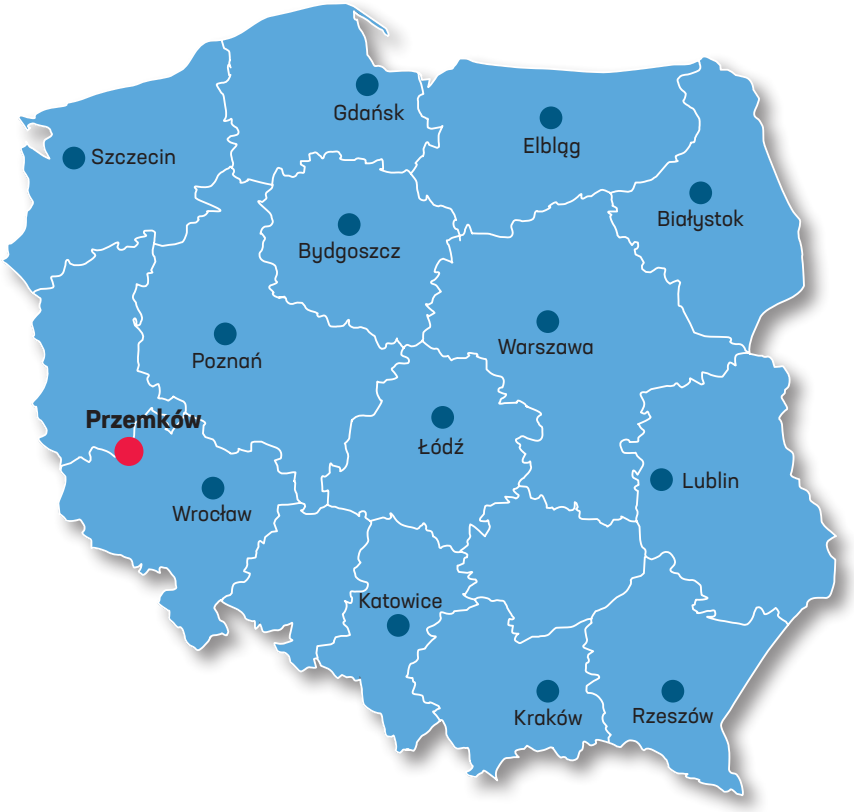
WELDING CONSUMABLES

Multimet®

Inżynieria spawalnicza



Multimet®
Inżynieria spawalnicza

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Dear Customer,

For better understanding philosophy and mission of Our organization, let me share with you some references.

Multimet is a family owned company manufacturing a high quality welding wires, based on newest technologies and reliable raw material for almost 35 years. We are active on domestic and abroad markets, providing high quality products in tailored made characteristics. We are proud to hand over to you our new product catalog. It contains a complete range of welding wires produced by Multimet Company for various applications. Expansion of our offer is an effect of the very dynamic activity of R&D division and investments made in machines and laboratories to improve our product every day.

Our commitment to the best solutions possible allow us to further increase the range of high quality products. The variety of welding consumables materials for sure will meet the individual needs of each customer.

The high quality materials offered by Multimet has been proven in professional operations by satisfied customers. Products received certificates by notified units such as Deutsche Bahn, Germianischer Lloyd, Bureau Veritas, Lloyds Register, Det Norske Veritas, ABS, Polish Ship Register Office, Polish Office of Technical Inspection /UDT/, TUV.

The strong and stable position of Multimet is based on reliability and flexibility with a background of know how developed over the years. For our customers pre and post sales service including tests, training and education is an additional value.

Our highly qualified staff is ready to help You to solve the most challenging welding problems if required.

On domestic market we have a sales network of offices located in following cities: Wrocław, Poznań, Gdańsk, Katowice, Lublin and Szczecin. Staff working there make our products widely and easy accessible and enable us to react promptly to any individual requirement.

If You are interested in purchasing goods for the export you are kindly advice to contact head office. Then You will be directed to one of our export managers.

I truly hope that Multimet offer will met your requirment and we are going to have ocassion to cooperate.

Best Regards
Michał Całek
President

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 all positions

 all positions, except vertical down

 all positions, except vertical down and overhead

 flat butt and fillet welds only

 flat butt welds only

 vertical down only

 vertical up only

SYMBOLS FOR TYPE OF CURRENT AND POLARITY

= +	DC, electrode connected to positive pole
= −	DC, electrode connected to negative pole
= ±	DC, electrode connected to either positive or negative pole
~	AC
= + | ~	preferably DC, electrode connected to positive pole, AC
= − | ~	preferably DC, electrode connected to negative pole, AC
= ± | ~	preferably DC, electrode connected to either positive or negative pole, AC
~ | = +	preferably AC, DC electrode connected to positive pole

SOLID WIRES

IMT 2

CLASSIFICATIONS:

EN ISO 14341-A: G3Si1
AWS A 5.18: ER70S-6
Werkstoff Nr - 1.5125

DESCRIPTION:

GMAW solid wire, copper coated, with the de-oxidising agents Mn and Si. This product is designed for semi-automatic welding under the shielding gas of C1 (CO_2) or mixtures M21 (Ar + CO_2). Metallurgical properties of the wire guarantee high quality welds and reliable wire-feeding during mechanized welding. The working temperature of welded joints is (-40°C) ÷ (450°C). IMT 2 is suitable for welding of unalloyed construction steels, boiler steels, shipbuilding steels and lowalloyed, general purpose, C-Mn steels of increased strength.

CHEMICAL COMPOSITION [%]:

C	Si	Mn	Cu
0,07	0,85	1,45	coating

MECHANICAL PROPERTIES:

SHIELDING GAS	Re [MPa]	Rm [MPa]	A5 [%]	KV [J]	KV [J]
C1(CO_2); M21 (Ar + CO_2)	> 420	500 ÷ 640	> 20	> 60 (-40°C) M21	> 47 (-40°C) C1

APPROVALS:

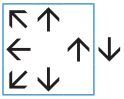
TÜV	LR	ABS	DNV	BV	GL	DB	UDT
+	+	+	+	+	+	+	+

Approvals: + obtained, x on request

CURRENT:

= +

WELDING POSITIONS:



DIAMETER:

Ø mm*			
0,8	1,0	1,2	1,6

*Other diameters avaliable after agreement

IMT 2E

CLASSIFICATIONS:

EN ISO 14341-A: G3Si1
AWS A 5.18: ER70S-6
Werkstoff Nr - 1.5125

DESCRIPTION:

GMAW solid wire, copper coated, with de-oxidising agents Mn and Si. This product is designed for semi-automatic welding under the shielding gas of C1(CO_2) or mixtures M21 (Ar + CO_2). Metallurgical properties of the wire guarantee high quality of the welds and reliability of feeding of the wire in the process of mechanized welding. The working temperature is (-40°C) ÷ (350°C).

CHEMICAL COMPOSITION [%]:

C	Si	Mn	Cu
0,075	0,95	1,65	coating

MECHANICAL PROPERTIES:

SHIELDING GAS	Re [MPa]	Rm [MPa]	A5 [%]	KV [J]	KV [J]
C1(CO_2); M21 (Ar + CO_2)	> 420	500 ÷ 640	> 20	> 60 (-40°C) M21	> 47 (-40°C) C1

APPROVALS:

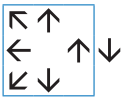
TÜV	LR	ABS	DNV	BV	GL	DB	UDT
+						+	

Approvals: + obtained, x on request

CURRENT:

= +

WELDING POSITIONS:



DIAMETER:

Ø mm*			
0,8	1,0	1,2	1,6

*Other diameters avaliable after agreement

IMT 3

CLASSIFICATIONS:

EN ISO 14341-A: G4Si1
AWS A 5.18: ER70S-6
Werkstoff Nr - 1.5130

DESCRIPTION:

GMAW solid wire, copper coated, with de-oxidising agents Mn and Si. This product is designed for semi-automatic welding under the shielding gas of C1(CO_2) or mixtures M21 (Ar + CO_2). The increased content of Mn gives higher weld strength, higher resistance to surface contamination and better impact strength, when compared to IMT 2 wire. The working temperature is (-40°C) ÷ (450°C). IMT 3 is suitable for welding of unalloyed construction steels, boiler steels, shipbuilding steels and low-alloyed, general purpose, C-Mn steels of increased strength.

CHEMICAL COMPOSITION [%]:

C	Si	Mn	Cu
0,075	0,95	1,65	coating

MECHANICAL PROPERTIES:

SHIELDING GAS	Re [MPa]	Rm [MPa]	A5 [%]	KV [J]	KV [J]
C1(CO_2); M21 (Ar + CO_2)	> 460	530 ÷ 680	> 20	> 60 (-40°C) M21	> 60 (-20°C) C1

APPROVALS:

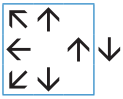
TÜV	LR	ABS	DNV	BV	GL	DB	UDT
+	+	+	+	+	+	+	+

Approvals: + obtained, x on request

CURRENT:

= +

WELDING POSITIONS:



DIAMETER:

Ø mm*			
0,8	1,0	1,2	1,6

*Other diameters avaliable after agreement

IMT 3E

CLASSIFICATIONS:

EN ISO 14341-A: G4Si1
AWS A 5.18: ER70S-6
Werkstoff Nr - 1.5130

DESCRIPTION:

GMAW solid wire, copper coated, with de-oxidising agents Mn and Si. This product is designed for semi-automatic welding under the shielding gas of C1(CO_2) or mixtures M21 (Ar + CO_2). The increased content of Mn gives higher weld strength, higher resistance to surface contamination and better impact strength when compared to IMT 2E wire. The working temperature is (-40°C) ÷ (350°C).

CHEMICAL COMPOSITION [%]:

C	Si	Mn	Cu
0,075	0,95	1,65	coating

MECHANICAL PROPERTIES:

SHIELDING GAS	Re [MPa]	Rm [MPa]	A5 [%]	KV [J]	KV [J]
C1(CO_2); M21 (Ar + CO_2)	> 460	530 ÷ 680	> 20	> 60 (-40°C) M21	> 47 (-40°C) C1

APPROVALS:

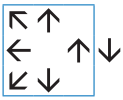
TÜV	LR	ABS	DNV	BV	GL	DB	UDT
+						+	

Approvals: + obtained, x on request

CURRENT:

= +

WELDING POSITIONS:



DIAMETER:

Ø mm*			
0,8	1,0	1,2	1,6

*Other diameters avaliable after agreement

IMT Mo

CLASSIFICATIONS:

EN ISO 14341-A: G2Mo
AWS A 5.18: ER80S-G
Werkstoff Nr - 1.5424

DESCRIPTION:

GMAW solid wire cooper coated, with 0,5% Mo, for semi-automatic welding under shielding gas of C1(CO_2) or mixtures M21 (Ar + CO_2). The welds are characterized by high strength, ductility and resistance to aging. The working temperature of welded joints is up to (500°C). IMT Mo is suitable for welding of construction steels, boiler steels, shipbuilding steels, creep resistant steels of 0,5% type and low-alloyed general purpose steels of increased strength.

CHEMICAL COMPOSITION [%]:

C	Si	Mn	Mo	Cu
0,10	0,59	1,13	0,50	coating

MECHANICAL PROPERTIES:

SHIELDING GAS	Re [MPa]	Rm [MPa]	A5 [%]	KV [J]	KV [J]
C1(CO_2); M21 (Ar + CO_2)	> 460	530 ÷ 680	> 20	> 47 (-20°C) M21	> 47 (-20°C) C1

APPROVALS:

TÜV	LR	ABS	DNV	BV	GL	DB	UDT
+						+	+

Approvals: + obtained, x on request

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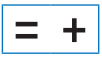

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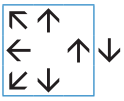


DIAMETER:

Ø mm*			
0,8	1,0	1,2	1,6

*Other diameters avaliable after agreement

IMT CrMo1Si

CLASSIFICATIONS:

EN ISO 21952-A:G CrMo1Si
AWS A 5.28: ER80S-G

DESCRIPTION:

GMAW solid wire, copper coated with 1,25% Cr, 0,5% Mo. This product is designed for semi-automatic welding under the shielding gas of C1(CO_2) or mixtures M21 (Ar + CO_2) for single and multipass welding of creep resistant steels with working temperature up to (500°C). IMT CrMo1Si is suitable for welding of high-pressure boilers and pipe-lines.

CHEMICAL COMPOSITION [%]:

C	Si	Mn	Mo	Cr
0,08	0,70	0,65	0,50	1,25

MECHANICAL PROPERTIES:

SHIELDING GAS	Re [MPa]	Rm [MPa]	A5 [%]	KV [J]	PWHT
M21 (Ar + CO_2)	> 470	> 550	> 19	> 70 (-20°C) M21	700°C - 1h

APPROVALS:

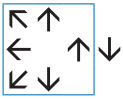
TÜV	LR	ABS	DNV	BV	GL	DB	UDT
+						+	

Approvals: + obtained, x on request

CURRENT:

= +

WELDING POSITIONS:



DIAMETER:

Ø mm*			
0,8	1,0	1,2	1,6

*Other diameters avaliable after agreement

IMT CrMo2Si

CLASSIFICATIONS:

EN ISO 21952-A:G CrMo2Si
AWS A 5.28: ER90S-G

DESCRIPTION:

GMAW solid wire copper coated with 2,25% Cr, 1% Mo. This product is designed for semi-automatic welding under the shielding gas of C1(CO_2) or mixtures M21 (Ar + CO_2) for single and multipass welding of creep resistant steels with working temperature up to (600°C). IMT CrMo2Si is suitable for welding of high- pressure boilers and pipe-lines.

CHEMICAL COMPOSITION [%]:

C	Si	Mn	Mo	Cr
0,07	0,50	0,65	1,00	2,30

MECHANICAL PROPERTIES:

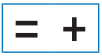
SHIELDING GAS	Re [MPa]	Rm [MPa]	A5 [%]	KV [J]	PWHT
M21 (Ar + CO2)	> 760	> 890	> 17	> 70 (+20°C) M21	700°C - 1h

APPROVALS:

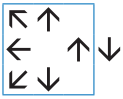
TÜV	LR	ABS	DNV	BV	GL	DB	UDT
x						x	

Approvals: + obtained, x on request

CURRENT:



WELDING POSITIONS:



DIAMETER:

Ø mm*			
0,8	1,0	1,2	1,6

*Other diameters avaliable after agreement

IMT CrMo91

CLASSIFICATIONS:

EN ISO 21952-A: G CrMo9 1
AWS A 5.28: ER90S-B9

DESCRIPTION:

GMAW solid wire, copper coated with 9% Cr, 1%Mo. This product is designed for semi-automatic welding under the shielding gas of (Ar + CO_2) or (Ar + CO_2 +O_2) for single and multipass welding of creep resistant steels with working temperature up to (650°C). IMT CrMo91 is suitable for welding of the steel for high temperature, creep-resistant and heatresistant type P91.

CHEMICAL COMPOSITION [%]:

C	Si	Mn	Cr	Ni	Mo	V	Nb
0,090	0,30	0,50	9,10	0,50	0,90	0,20	0,07

MECHANICAL PROPERTIES:

SHIELDING GAS	Re [MPa]	Rm [MPa]	A5 [%]	KV [J]	PWHT
EN ISO 14175: M20 M21 M24 M26	690	780	21	+20°C : 150	700°C - 1h

WELDING PROCESS:

Prehat Temperature: 205-320°C
Interpass Temperature: 205-320°C
Post-Weld Heat Treatment: 760±15°C

APPROVALS:

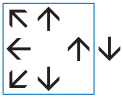
TÜV	LR	ABS	DNV	BV	GL	DB	UDT
x							

Approvals: + obtained, x on request

CURRENT:

= +

WELDING POSITIONS:



DIAMETER:

Ø mm*			
0,8	1,0	1,2	1,6

*Other diameters avaliable after agreement

IMT CORTEN

CLASSIFICATIONS:

EN ISO 14341-A: G0
AWS A 5.28: ER80S-G

DESCRIPTION:

GMAW solid wire, copper coated with 0,3% Cr. This product is designed for semi-automatic welding under the protective atmosphere of mixtures M21 (Ar + CO_2) for single and multipass welding of weathering steels, also suitable for joining high yield strength steels.

CHEMICAL COMPOSITION [%]:

C	Si	Mn	Cr	Cu	Ni
0,1	0,7	1,4	0,3	0,3	0,8

MECHANICAL PROPERTIES:

SHIELDING GAS	Re [MPa]	Rm [MPa]	A5 [%]	KV [J]
M21 (Ar + CO_2)	> 490	> 560	> 24	> 60 (-20°C)

APPROVALS:

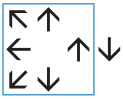
TÜV	LR	ABS	DNV	BV	GL	DB	UDT
+						+	

Approvals: + obtained, x on request

CURRENT:

= +

WELDING POSITIONS:



DIAMETER:

Ø mm*			
0,8	1,0	1,2	1,6

*Other diameters avaliable after agreement

IMT NiMoCr

CLASSIFICATIONS:

EN ISO 16834-A:G Mn3Ni1CrMo
AWS A 5.28: ER100S-G

DESCRIPTION:

GMAW solid low-alloyed wire, copper-coated. This product is designed for semi-automatic welding under the shielding gas of C1(CO_2) or mixtures M21 (Ar + CO_2). The welds made with this wire are characterised by good resistance to brittle cracking. IMT NiMoCr is suitable for welding of high strength steels in productions of heavy-duty machinery, crane installations, equipment for excavation and mining industry.

CHEMICAL COMPOSITION [%]:

C	Si	Mn	Mo	Cr	Ni	Cu
0,08	0,45	1,60	0,25	0,30	1,90	coating

MECHANICAL PROPERTIES:

SHIELDING GAS	Re [MPa]	Rm [MPa]	A5 [%]	KV [J]
M21 (Ar + CO2)	> 690	> 720	> 17	> 47 (-40°C) M21

APPROVALS:

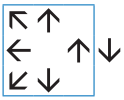
TÜV	LR	ABS	DNV	BV	GL	DB	UDT
+						+	

Approvals: + obtained, x on request

CURRENT:

= +

WELDING POSITIONS:



DIAMETER:

Ø mm*			
0,8	1,0	1,2	1,6

*Other diameters avaliable after agreement

IMT NiMoCr-2

CLASSIFICATIONS:

EN ISO 16834-A:G Mn4Ni2CrMo
AWS A 5.28: ER110S-G

DESCRIPTION:

GMAW solid low- alloyed wire, copper- coated. This product is designed for semi-automatic welding under the shielding gas of C1(CO_2) or mixtures M21 (Ar + CO_2) for single and multipass welding. The welds made with this wire are characterised by good resistance to brittle cracking. IMT NiMoCr-2 is suitable for welding of high strength steels with yield strength up to 890MPa in production of heavy-duty machinery, crane installations, equipment for excavation and mining industry.

CHEMICAL COMPOSITION [%]:

C	Si	Mn	Mo	Cr	Ni
0,09	0,80	2,90	0,60	0,30	2,30

MECHANICAL PROPERTIES:

SHIELDING GAS	Re [MPa]	Rm [MPa]	A5 [%]	KV [J]
M21 (Ar + CO_2)	> 890	> 960	> 15	> 47 (-60°C) M21

APPROVALS:

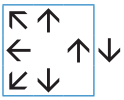
TÜV	LR	ABS	DNV	BV	GL	DB	UDT
						x	

Approvals: + obtained, x on request

CURRENT:

= +

WELDING POSITIONS:



DIAMETER:

Ø mm*			
0,8	1,0	1,2	1,6

*Other diameters avaliable after agreement

IMT NiMoCr-2.5

CLASSIFICATIONS:

EN ISO 16834-A: G Mn4Ni2.5CrMo
AWS A 5.28: ER120S-G

DESCRIPTION:

GMAW solid low-alloyed wire, copper coated. This product is designed for semi-automatic welding under the shielde gas of mixtures M21 (Ar + CO_2) for single and multipass welding. IMT NiMoCr-2.5 is suitable for welding of high strength steels with requirements for high impact resistance in low temperatures.

CHEMICAL COMPOSITION [%]:

C	Si	Mn	Mo	Cr	Ni
0,07	0,5	1,5	0,45	0,3	2,5

MECHANICAL PROPERTIES:

SHIELDING GAS	Re [MPa]	Rm [MPa]	A5 [%]	KV [J]
M21	> 800	> 900	> 17	> 47 (-50°C)

APPROVALS:

TÜV	LR	ABS	DNV	BV	GL	DB	UDT
						+	

Approvals: + obtained, x on request

CURRENT:

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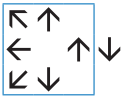
WELDING POSITIONS:



DIAMETER:

Ø mm*			
0,8	1,0	1,2	1,6

*Other diameters avaliable after agreement

IMT G2Ni2

CLASSIFICATIONS:

EN ISO 14341-A: G2 Ni2
AWS A 5.18: ER80S-Ni2

DESCRIPTION:

GMAW solid wire, copper coated with 2% Ni. This product is designed for semi-automatic welding under the shielding gas of C1(CO_2) or mixtures M21 (Ar + CO_2). IMT G2Ni2 is suitable for single and multipass welding for low temperature steels with impact resistance up to (-60°C).

CHEMICAL COMPOSITION [%]:

C	Si	Mn	P	S	Ni
0,08	0,60	1,10	< 0,015	< 0,015	2,50

MECHANICAL PROPERTIES:

SHIELDING GAS	Re [MPa]	Rm [MPa]	A5 [%]	KV [J]
M21 (Ar + CO_2)	> 470	> 600	> 26	> 60 (-60°C) M21

APPROVALS:

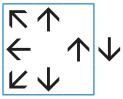
TÜV	LR	ABS	DNV	BV	GL	DB	UDT
+						x	

Approvals: + obtained, x on request

CURRENT:

= +

WELDING POSITIONS:



DIAMETER:

Ø mm*			
0,8	1,0	1,2	1,6

*Other diameters avaliable after agreement

STAINLESS STEEL WIRES

IMT 307 Si

CLASSIFICATIONS:

EN ISO 14343-A: G 18 8 Mn
AWS A 5.9-93: ER 307 Si

DESCRIPTION:

The wires and rods for welding and surfacing of semi-automatic shield gas mixture Ar+CO_2 (MAG) and argon Ar (TIG). This gives austenitic-ferritic weld metal, exhibiting high resistance to hot cracking, intended primarily for making joint dissimilar stainless steels, eg. with unalloyed steels (low and high-carbon), low-alloy or to join ferritic steels, ferriticmartensitic, ferritic-austenitic tool, spring, high-manganese (13 -14% Mn) - wear resistant, heat resistant. Also used for buffer layers before hardfacing hard alloys.

CHEMICAL COMPOSITION [%]:

C	Si	Mn	Cr	Ni
0,20	0,65-1,0	4,5-7,5	17,0-20,0	7,0-10,0

MECHANICAL PROPERTIES:

GAS	Re [MPa]	Rm [MPa]	A5 [%]	KV [J]
M1	> 500	> 350	> 25	+20°C : 120

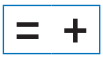
APPROVALS:

TÜV	LR	ABS	DNV	BV	GL	DB	UDT
+						+	

Approvals: + obtained, x on request

CURRENT:

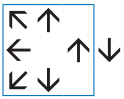
MAG:



TIG:

WELDING POSITIONS:

MAG:



TIG:

DIAMETER:

MAG: Ø mm*			
0,8	1,0	1,2	1,6

TIG: Ø mm*								
0,8	1,0	1,2	1,6	2,0	2,4	3,2	4,0	5,0

*Other diameters avaliable after agreement

IMT 308 LSi

CLASSIFICATIONS:

EN ISO 14343-A: W/G 19 9 LSi
AWS A 5.9-93: ER 308 LSi

DESCRIPTION:

The wires and rods for welding and surfacing of semi-automatic shield gas mixture of Ar+CO_2 (MAG) and argon Ar (TIG). The weld metal resistant to intergranular corrosion and corrosion in liquid media up to 350°C, acid oxidizing and reducing acids at low temperatures. Designed for austenitic stainless steels with low carbon content. Also used to unstabilized and stabilized Nb, Ti corrosion-resistant steel series. The increased silicon content in purpose to improve the weldability.

CHEMICAL COMPOSITION [%]:

C	Si	Mn	Cr	Ni
0,30	0,65-1,0	1,0-2,5	19,5-22,0	9,0-11,0

MECHANICAL PROPERTIES:

GAS	Re [MPa]	Rm [MPa]	A5 [%]	KV [J]
M1	> 510	> 320	> 30	-190°C : 47

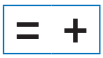
APPROVALS:

TÜV	LR	ABS	DNV	BV	GL	DB	UDT
+						+	

Approvals: + obtained, x on request

CURRENT:

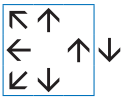
MAG:



TIG:

WELDING POSITIONS:

MAG:



TIG:

DIAMETER:

MAG: Ø mm*			
0,8	1,0	1,2	1,6

TIG: Ø mm*								
0,8	1,0	1,2	1,6	2,0	2,4	3,2	4,0	5,0

*Other diameters avaliable after agreement

IMT 309 LSi

CLASSIFICATIONS:

EN ISO 14343-A: W/G 23 12 LSi
AWS A 5.9-93: ER 309 LSi

DESCRIPTION:

The wires and rods for welding and surfacing of semi-automatic shield gas mixture Ar+CO_2 (MAG) and argon Ar (TIG). After welding, the weld metal obtained austenitic high content of Cr and Ni with a low carbon content. Designed to joint unalloyed, low-alloy steel, stainless steel, heat resistant steels with austenitic steels. Also used stacking buffer layers by plating the surface of the sheet non-stabilized, stabilized and austenitic steels with low carbon content. The increased silicon content in purpose to improve the weldability.

CHEMICAL COMPOSITION [%]:

C	Si	Mn	Cr	Ni
0,03	0,65-1,0	1,0-2,5	23,0-25,0	12,0-14,0

MECHANICAL PROPERTIES:

GAS	Re [MPa]	Rm [MPa]	A5 [%]	KV [J]
M1	> 510	> 320	> 25	-20°C : 47

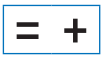
APPROVALS:

TÜV	LR	ABS	DNV	BV	GL	DB	UDT
+						+	

Approvals: + obtained, x on request

CURRENT:

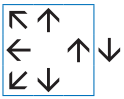
MAG:



TIG:

WELDING POSITIONS:

MAG:



TIG:

DIAMETER:

MAG: Ø mm*			
0,8	1,0	1,2	1,6

TIG: Ø mm*								
0,8	1,0	1,2	1,6	2,0	2,4	3,2	4,0	5,0

*Other diameters avaliable after agreement

IMT 316 LSi

CLASSIFICATIONS:

EN ISO 14343-A: W/G 19 12 3 LSi
AWS A 5.9-93: ER 316 LSi

DESCRIPTION:

The wires and rods for welding and surfacing of semi-automatic shield gas mixture Ar+CO_2 (MAG) and argon Ar (TIG). Designed primarily for welding low-carbon, acid-resistant, austenitic CrNiMo steel, as well as for welding of Nb or Ti stabilized. Resistant to intergranular corrosion and corrosion in liquid media (in dilute acids) to 400°C. Ensure the achievement of the welds on the structure of austenitic-ferritic and austenitic.

CHEMICAL COMPOSITION [%]:

C	Si	Mn	Cr	Ni	Ni
0,03	0,65-1,0	1,0-2,5	2,0-3,0	18,0-20,0	11,0-14,0

MECHANICAL PROPERTIES:

GAS	Re [MPa]	Rm [MPa]	A5 [%]	KV [J]
M1	> 550	> 350	> 20	+20°C : 100

APPROVALS:

TÜV	LR	ABS	DNV	BV	GL	DB	UDT
+						+	

Approvals: + obtained, x on request

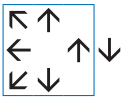
CURRENT:

MAG: = +

TIG: = −

WELDING POSITIONS:

MAG:



TIG:

DIAMETER:

MAG: Ø mm*			
0,8	1,0	1,2	1,6

TIG: Ø mm*								
0,8	1,0	1,2	1,6	2,0	2,4	3,2	4,0	5,0

*Other diameters avaliable after agreement

Multimet Sp. z o.o. is not responsible for obvious mistakes, linguistic and printing mistakes that may appear in the catalogue.

ALUMINIUM WIRES

IMT AlSi5

CLASSIFICATIONS:

EN ISO 18273: S Al 4043 (AlSi5)
AWS A 5.10-92: ER 4043

DESCRIPTION:

Aluminium wires and rods containing 5% Si for welding semi-automatic MIG and TIG argon, helium or a mixture of Ar + H1. Suitable for welding aluminum alloys (AlSi) containing 7% Si as the main alloying element and aluminum alloys (AlMgSi) containing 2% of alloying elements.

CHEMICAL COMPOSITION [%]:

C	Fe	Cu	Mn	Zn	Ti	Mg
5,0	0,8	0,03	0,05	0,10	0,20	0,05

MECHANICAL PROPERTIES:

GAS	Re [MPa]	Rm [MPa]	A5 [%]	Melting range [°C]
I1	> 40	> 120	> 8	573-625

APPROVALS:

TÜV	LR	ABS	DNV	BV	GL	DB	UDT
x	x		x		x	x	

Approvals: + obtained, x on request

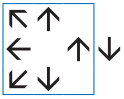
CURRENT:

MAG: = +

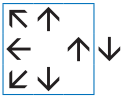
TIG: ~

WELDING POSITIONS:

MAG:



TIG:



DIAMETER:

MAG: Ø mm*					
0,8	1,0	1,2	1,6	2,0	2,4

TIG: Ø mm*								
0,8	1,0	1,2	1,6	2,0	2,4	3,2	4,0	5,0

*Other diameters avaliable after agreement

IMT AlSi12

CLASSIFICATIONS:

EN ISO 18273: S Al 4047 (AlSi12)
AWS A 5.10-92: ER 4047

DESCRIPTION:

Aluminium wires and rods containing 12% Si for welding semi-automatic MIG and TIG argon, helium or a mixture of Ar + H1. Suitable for welding aluminum alloys (AlSi) containing more than 7% Si as the main alloying element. Corrosion resistance of the weld metal. The low melting temperature minimizes deformation of the parent material.

CHEMICAL COMPOSITION [%]:

Si	Fe	Cu	Mn	Zn	Mg
12,0	0,8	0,03	0,05	0,20	0,10

MECHANICAL PROPERTIES:

GAS	Re [MPa]	Rm [MPa]	A5 [%]	Melting range [°C]
I1	> 60	> 130	> 5	573-585

APPROVALS:

TÜV	LR	ABS	DNV	BV	GL	DB	UDT
x	x		x		x	x	

Approvals: + obtained, x on request

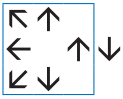
CURRENT:

MAG: = +

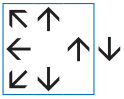
TIG: ~

WELDING POSITIONS:

MAG:



TIG:



DIAMETER:

MAG: Ø mm*					
0,8	1,0	1,2	1,6	2,0	2,4

TIG: Ø mm*								
0,8	1,0	1,2	1,6	2,0	2,4	3,2	4,0	5,0

*Other diameters avaliable after agreement

IMT AlMg5

CLASSIFICATIONS:

EN ISO 18273: S Al 5356 (AlMg5Cu(A))
AWS A 5.10-92: ER 5356

DESCRIPTION:

Aluminium wires and rods containing 5% Mg welding semi-automatic MIG and TIG argon, helium or a mixture of Ar + H1. Suitable for welding Al-Mg alloys and AlMgSi. The weld metal resistant to seawater. After anodizing produces a similar color to the parent material.

CHEMICAL COMPOSITION [%]:

Si	Fe	Cr	Cu	Mn	Zn	Ti	Mg
0,25	0,40	0,05-0,20	0,10	0,05-0,20	0,10	0,06-0,20	5,0

MECHANICAL PROPERTIES:

GAS	Re [MPa]	Rm [MPa]	A5 [%]	Melting range [°C]
I1	> 110	> 235	> 17	562-633

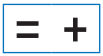
APPROVALS:

TÜV	LR	ABS	DNV	BV	GL	DB	UDT
x	x		x		x	x	

Approvals: + obtained, x on request

CURRENT:

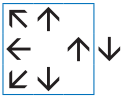
MAG:



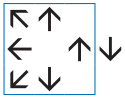
TIG:

WELDING POSITIONS:

MAG:



TIG:



DIAMETER:

MAG: Ø mm*					
0,8	1,0	1,2	1,6	2,0	2,4

TIG: Ø mm*								
0,8	1,0	1,2	1,6	2,0	2,4	3,2	4,0	5,0

*Other diameters avaliable after agreement

IMT AlMg4.5Mn

CLASSIFICATIONS:

EN ISO 18273: S Al 5183 (AlMg4.5Mn0.7(A))
AWS A 5.10-92: ER 5183

DESCRIPTION:

Aluminum wires and rods for semi-automatic MIG welding and TIG argon, helium or a mixture of Ar + H1 containing approx. 5% Mg and Mn content increased to increase the strength. Suitable for welding Al-Mg alloy AlMgSi and high strength. The weld metal is highly resistant to seawater.

CHEMICAL COMPOSITION [%]:

Si	Fe	Cr	Cu	Mn	Zn	Ti	Mg
0,40	0,40	0,05-0,25	0,10	0,50-1,0	0,25	0,15	4,30-5,20

MECHANICAL PROPERTIES:

GAS	Re [MPa]	Rm [MPa]	A5 [%]	Melting range [°C]
I1	> 125	> 275	> 17	568-638

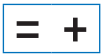
APPROVALS:

TÜV	LR	ABS	DNV	BV	GL	DB	UDT
x	x		x		x	x	

Approvals: + obtained, x on request

CURRENT:

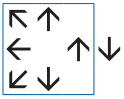
MAG:



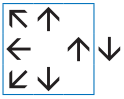
TIG:

WELDING POSITIONS:

MAG:



TIG:



DIAMETER:

MAG: Ø mm*					
0,8	1,0	1,2	1,6	2,0	2,4

TIG: Ø mm*								
0,8	1,0	1,2	1,6	2,0	2,4	3,2	4,0	5,0

*Other diameters avaliable after agreement

IMT AlMg4.5MnZr

CLASSIFICATIONS:

EN ISO 18273: S Al AlMg4.5MnZr
AWS A 5.10-92: ER 5183

DESCRIPTION:

Aluminium wires and rods for welding semi-automatic MIG and TIG argon, helium or a mixture of Ar + H1 containing approx. 5% Mg, Mn content increased and micro-addition Zr. Suitable for welding Al-Mg alloys and AlMgSi. The weld metal has a high strength, resistance to hot cracking, and high resistance to sea water.

CHEMICAL COMPOSITION [%]:

Si	Fe	Cr	Cu	Mn	Zn	Ti	Zr	Mg
0,25	0,40	0,05-0,25	0,05	0,70-1,1	0,25	0,15	0,10-0,20	4,50-5,20

MECHANICAL PROPERTIES:

GAS	Re [MPa]	Rm [MPa]	A5 [%]	Melting range [°C]
I1	> 125	> 275	> 17	568-638

APPROVALS:

TÜV	LR	ABS	DNV	BV	GL	DB	UDT
x	x		x		x	x	

Approvals: + obtained, x on request

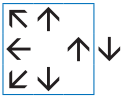
CURRENT:

MAG: = +

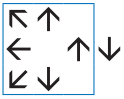
TIG: ~

WELDING POSITIONS:

MAG:



TIG:



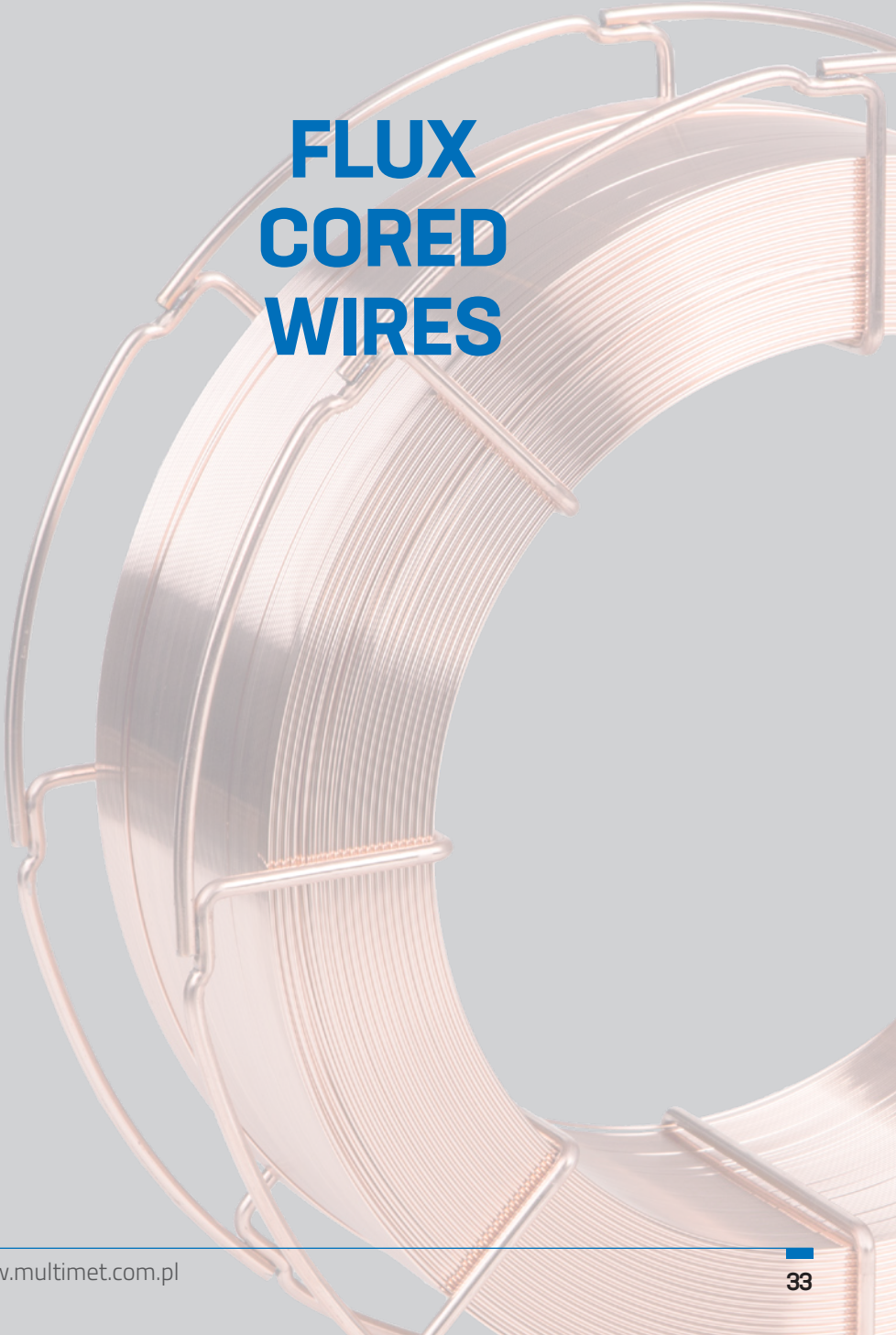
DIAMETER:

MAG: Ø mm*					
0,8	1,0	1,2	1,6	2,0	2,4

TIG: Ø mm*								
0,8	1,0	1,2	1,6	2,0	2,4	3,2	4,0	5,0

*Other diameters avaliable after agreement

FLUX CORED WIRES



IMT M700

CLASSIFICATIONS:

EN ISO 17632-A: T46 6 M M 1 H5
AWS A 5.20: E70C-6M H4

DESCRIPTION:

Seamless metalic flux cored wire, copper coated. This product is designed for single and multipass welding. Very low hydrogen content (HD < 5ml/100g) provides excellent mechanical properties in temperatures as low as (-60°C). IMT M700 is suitable for application, shipbuilding and steel construction. CTOD tested.

CHEMICAL COMPOSITION [%]:

C	Si	Mn	P	S
0,05	0,7	1,5	< 0,015	< 0,015

MECHANICAL PROPERTIES:

SHIELDING GAS	Re [MPa]	Rm [MPa]	A5 [%]	KV [J]
M21 (Ar + CO_2)	> 460	> 530- 680	> 27	> 47 (-60°C) M21

APPROVALS:

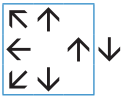
TÜV	LR	ABS	DNV	BV	GL	DB	UDT
+	+	+	+	+	+	+	

Approvals: + obtained, x on request

CURRENT:

= +

WELDING POSITIONS:



DIAMETER:

Ø mm*			
0,8	1,0	1,2	1,6

*Other diameters avaliable after agreement

IMT M700Ni

CLASSIFICATIONS:

EN ISO 17632-A: T50 6 1Ni M M1 H5
AWS A 5.36: E80T15-M21A8-Ni1-H4

DESCRIPTION:

Seamless metallic flux cored wire, copper coated with rapidly solidifying slag. This product is designed for single and multipass welding. Very low hydrogen content (HD < 5ml/100g) provides excellent mechanical properties in temperatures as low as (-60°C). IMT M700Ni is suitable for offshore application, shipbuilding and steel construction.

CHEMICAL COMPOSITION [%]:

Gas	C	Si	Mn	Ni
M21	0,06	0,50	1,30	0,90

MECHANICAL PROPERTIES:

Condition	Re [MPa]	Rm [MPa]	A5 [%]	KV[J] -60°C
a	530	620	27	90
b	500	560	26	90
c	360	520	33	100

a - untreated, as welded: shielding gas M21
b - stress relieved 580°C/3h: shielding gas M21
c - normalized 920°C/30min: shielding gas M21

APPROVALS:

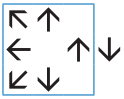
TÜV	LR	ABS	DNV	BV	GL	DB	UDT
+		+	+		+	+	

Approvals: + obtained, x on request

CURRENT:

= +

WELDING POSITIONS:



DIAMETER:

Ø mm*			
0,8	1,0	1,2	1,6

*Other diameters avaliable after agreement

IMT R711

CLASSIFICATIONS:

EN ISO 17632-A: T46 4 P M 1 H5
AWS A 5.20: E71T-1 H4

DESCRIPTION:

Seamless metallic flux cored wire, copper coated. This product is designed for single and multipass welding Very low hydrogen content (HD < 5ml/100g) provides excellent mechanical properties in temperatures as low as (-60°C). IMT R711 is suitable for offshore application, shipbuilding and steel construction. CTOD tested.

CHEMICAL COMPOSITION [%]:

C	Si	Mn	P	S
0,05	0,5	1,3	< 0,015	< 0,015

MECHANICAL PROPERTIES:

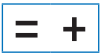
SHIELDING GAS	Re [MPa]	Rm [MPa]	A5 [%]	KV [J]
M21 (Ar + CO_2)	> 470	> 540	> 25	60 (-40°C) M21

APPROVALS:

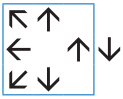
TÜV	LR	ABS	DNV	BV	GL	DB	UDT
+	+	+	+	+	+	+	

Approvals: + obtained, x on request

CURRENT:



WELDING POSITIONS:



DIAMETER:

Ø mm*			
0,8	1,0	1,2	1,6

*Other diameters avaliable after agreement

IMT R711Ni

CLASSIFICATIONS:

EN ISO 17632-A: T46 4 P M1 H5
AWS A 5.36: E71T1-M21A4-CS1H4

DESCRIPTION:

Seamless metallic flux cored wire, copper coated. This product is designed for single and multipass welding. Very low hydrogen content (HD < 5ml/100g) provides excellent mechanical properties in temperatures as low as (-60°C). IMT R711Ni is suitable for offshore application, shipbuilding and steel construction.

CHEMICAL COMPOSITION [%]:

Gas	C	Si	Mn	Ni
M21	0,06	0,45	1,30	0,35
C1	0,05	0,35	1,00	0,30

MECHANICAL PROPERTIES:

Gas	Re [MPa]	Rm [MPa]	A5 [%]	KV[J]		
				+20°C	-20°C	-40°C
M21	590	560	28	120	110	90
C1	550	520	37	110	100	

APPROVALS:

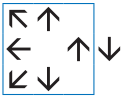
TÜV	LR	ABS	DNV	BV	GL	DB	UDT
+	+		+				

Approvals: + obtained, x on request

CURRENT:

= +

WELDING POSITIONS:



DIAMETER:

Ø mm*			
0,8	1,0	1,2	1,6

*Other diameters avaliable after agreement

IMT R811

CLASSIFICATIONS:

EN ISO 17632-A: T50 6 1Ni P M 1 H5
AWS A 5.29: E81T1-Ni1 H4

DESCRIPTION:

Seamless rutile flux cored wire, copper coated. This product is designed for single and multipass welding. Low hydrogen content (HD < 5ml/100g) provides excellent mechanical properties even in temperatures as low as (-60°C). IMT R811 is suitable for offshore application, shipbuilding and steel construction.

CHEMICAL COMPOSITION [%]:

C	Si	Mn	Ni	P	S
0,05	0,5	1,3	0,8	< 0,015	< 0,015

MECHANICAL PROPERTIES:

SHIELDING GAS	Re [MPa]	Rm [MPa]	A5 [%]	KV [J]
M21 (Ar + CO_2)	> 510	> 570	> 20	> 47 (-60°C) M21

APPROVALS:

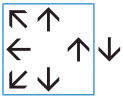
TÜV	LR	ABS	DNV	BV	GL	DB	UDT
+	+	+	+	+	+	+	

Approvals: + obtained, x on request

CURRENT:

= +

WELDING POSITIONS:



DIAMETER:

Ø mm*			
0,8	1,0	1,2	1,6

*Other diameters avaliable after agreement

IMT M CORTEN

CLASSIFICATIONS:

EN ISO 17632-A: T46 4 Z M M 2 H5
AWS A 5.28: E80C-G H4

DESCRIPTION:

Seamless metalic flux cored wire, copper coated. This product is designed for single and multipass welding. Very low hydrogen content (HD < 5 ml/100 g) provides excellent mechanical properties in temperatures as low as (-40°C). IMT M CORTEN is suitable for welding atmosphere resistance steel type Corten.

CHEMICAL COMPOSITION [%]:

C	Si	Mn	Cu	Ni
0,06	0,45	1,20	0,50	0,20

MECHANICAL PROPERTIES:

SHIELDING GAS	Re [MPa]	Rm [MPa]	A5 [%]	KV [J]
M21 (Ar + CO_2)	470	550-680	22	-40°C : 47, -60°C : 27

APPROVALS:

TÜV	LR	ABS	DNV	BV	GL	DB	UDT
x						x	

Approvals: + obtained, x on request

CURRENT:

= +

WELDING POSITIONS:

DIAMETER:

Ø mm*			
0,8	1,0	1,2	1,6

*Other diameters avaliable after agreement

IMT R CrMo1

CLASSIFICATIONS:

EN ISO 17632-A: T CrMo1 P M 1 H5
AWS A 5.29: E81T1-B2 H4

DESCRIPTION:

Seamless rutile flux cored wire, copper coated. This product is designed for single and multipass welding of creep resistant steels with a working temperature up to (500°C). Excellent mechanical properties, very low hydrogen content (HD < 5ml/100g).

CHEMICAL COMPOSITION [%]:

C	Si	Mn	Mo	Cr
0,05	0,5	0,8	0,50	1,30

MECHANICAL PROPERTIES:

SHIELDING GAS	Re [MPa]	Rm [MPa]	A5 [%]	KV [J]	PWHT
M21 (Ar + CO_2)	> 470	> 570	> 19	> 50 (+20°C) M21	700°C - 1h

APPROVALS:

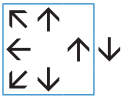
TÜV	LR	ABS	DNV	BV	GL	DB	UDT
x						x	

Approvals: + obtained, x on request

CURRENT:

= +

WELDING POSITIONS:



DIAMETER:

Ø mm*			
0,8	1,0	1,2	1,6

*Other diameters avaliable after agreement

IMT M CrMo1

CLASSIFICATIONS:

EN ISO 17632-A: T CrMo1 M M 2 H5
AWS A 5.28: E80C-B2 H4

DESCRIPTION:

Seamless metalic flux cored wire, copper coated. This product is designed for single and multipass welding of creep resistant steel with a working temperature up to (500°C). Excellent mechanical properties, very low hydrogen content (HD < 5ml/100g).

CHEMICAL COMPOSITION [%]:

C	Si	Mn	Mo	Cr
0,06	0,4	1,1	0,50	1,20

MECHANICAL PROPERTIES:

SHIELDING GAS	Re [MPa]	Rm [MPa]	A5 [%]	KV [J]	PWHT
M21 (Ar + CO_2)	> 470	> 570	> 19	> 70 (+20°C) M21	700°C - 1h

APPROVALS:

TÜV	LR	ABS	DNV	BV	GL	DB	UDT
x						x	

Approvals: + obtained, x on request

CURRENT:

= +

WELDING POSITIONS:

DIAMETER:

Ø mm*			
0,8	1,0	1,2	1,6

*Other diameters avaliable after agreement

IMT R CrMo2

CLASSIFICATIONS:

EN ISO 17632-A: T CrMo2 P M 1 H5
AWS A 5.29: E91T1-B3 H4

DESCRIPTION:

Seamless rutile flux cored wire, copper coated. This product is designed for single and multipass welding of creep resistance steel with working temperature up to (600°C). Good mechanical properties, very low hydrogen content (HD < 5ml/100g).

CHEMICAL COMPOSITION [%]:

C	Si	Mn	Mo	Cr
0,06	0,35	1,10	1,00	2,20

MECHANICAL PROPERTIES:

SHIELDING GAS	Re [MPa]	Rm [MPa]	A5 [%]	KV [J]	PWHT
M21 (Ar + CO_2)	> 540	> 700	> 17	> 70 (20°C) M21	700°C - 1h

APPROVALS:

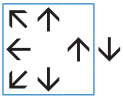
TÜV	LR	ABS	DNV	BV	GL	DB	UDT
x						x	

Approvals: + obtained, x on request

CURRENT:

= +

WELDING POSITIONS:



DIAMETER:

Ø mm*			
0,8	1,0	1,2	1,6

*Other diameters avaliable after agreement

IMT M CrMo2

CLASSIFICATIONS:

EN ISO 17632-A: T CrMo2 M M 2 H5
AWS A 5.28: E90C-B3 H4

DESCRIPTION:

Seamless metalic flux cored wire, copper coated. This product is designed for single and multipass welding of creep resistance steel with working temperature up to (600°C). Good mechanical properties, very low hydrogen content (HD < 5ml/100g).

CHEMICAL COMPOSITION [%]:

C	Si	Mn	Mo	Cr
0,06	0,35	1,1	1	2,20

MECHANICAL PROPERTIES:

SHIELDING GAS	Re [MPa]	Rm [MPa]	A5 [%]	KV [J]	PWHT
M21 (Ar + CO_2)	> 540	> 700	> 17	> 70 (20°C) M21	700°C - 1h

APPROVALS:

TÜV	LR	ABS	DNV	BV	GL	DB	UDT
x						x	

Approvals: + obtained, x on request

CURRENT:

= +

WELDING POSITIONS:

DIAMETER:

Ø mm*			
0,8	1,0	1,2	1,6

*Other diameters avaliable after agreement

IMT R NiMoCr

CLASSIFICATIONS:

EN ISO 18276-A: T69 4 Z P M 1 H5
AWS A 5.29: E110T1-K4 H4

DESCRIPTION:

Seamless rutile flux cored wire, copper coated. This product is designed for single and multipass welding of high strength steels. Low hydrogen content (HD < 5 ml/100g) provides excellent mechanical properties even in temperatures as low as (-40°C). IMT R NiMoCr is suitable for offshore application, pipe line construction and heavy duty machinery.

CHEMICAL COMPOSITION [%]:

C	Si	Mn	Mo	Ni	P	S
0,07	0,40	1,70	0,18	2,00	< 0,020	< 0,020

MECHANICAL PROPERTIES:

SHIELDING GAS	Re [MPa]	Rm [MPa]	A5 [%]	KV [J]
M21 (Ar + CO_2)	> 690	> 780	> 17	> 70 (-40°C) M21

APPROVALS:

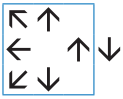
TÜV	LR	ABS	DNV	BV	GL	DB	UDT
x	x		x	x	x	x	

Approvals: + obtained, x on request

CURRENT:

= +

WELDING POSITIONS:



DIAMETER:

Ø mm*			
0,8	1,0	1,2	1,6

*Other diameters avaliable after agreement

IMT M NiMoCr

CLASSIFICATIONS:

EN ISO 18276-A: T69 4 Mn2NiCrMo M M 2 H5
AWS A 5.28: E110TC-K4 H4

DESCRIPTION:

Seamless metalic flux cored wire, copper coated. This product is designed for single and multipass welding of high strength steels. Low hydrogen content (HD < 5 ml/100g) Provides excellent mechanical properties, high impact resistance in temperatures as low as (-40°C). IMT M NiMoCr is suitable for offshore application, pipe line construction, and heavy duty machinery.

CHEMICAL COMPOSITION [%]:

C	Si	Mn	Mo	Cr	Ni	P	S
0,07	0,40	1,40	0,40	0,50	2,20	< 0,025	< 0,025

MECHANICAL PROPERTIES:

SHIELDING GAS	Re [MPa]	Rm [MPa]	A5 [%]	KV [J]
M21 (Ar + CO_2)	> 690	> 800	> 19	> 47J (-40°C) M21

APPROVALS:

TÜV	LR	ABS	DNV	BV	GL	DB	UDT
x	x		x	x	x	x	

Approvals: + obtained, x on request

CURRENT:

= +

WELDING POSITIONS:

DIAMETER:

Ø mm*			
0,8	1,0	1,2	1,6

*Other diameters avaliable after agreement

IMT M NiMoCr2

CLASSIFICATIONS:

EN ISO 18276-A: T89 4 Mn2NiCrMo M M 2 H5
AWS A 5.28: E120C-G H4

DESCRIPTION:

Seamless metalic flux cored wire, copper coated. This product is designed for single and multipass welding of high strength steels. Excellent mechanical properties, high impact resistance in temperatures as low as (-40°C), very low hydrogen content (HD < 5ml/100g).

CHEMICAL COMPOSITION [%]:

C	Si	Mn	Mo	Cr	Ni	P	S
0,06	0,50	1,60	0,40	1,00	2,20	< 0,025	< 0,025

MECHANICAL PROPERTIES:

SHIELDING GAS	Re [MPa]	Rm [MPa]	A5 [%]	KV [J]
M21 (Ar + CO_2)	> 960	> 1080	> 15	> 50 (-40°C)

APPROVALS:

TÜV	LR	ABS	DNV	BV	GL	DB	UDT
x			x			x	

Approvals: + obtained, x on request

CURRENT:

= +

WELDING POSITIONS:

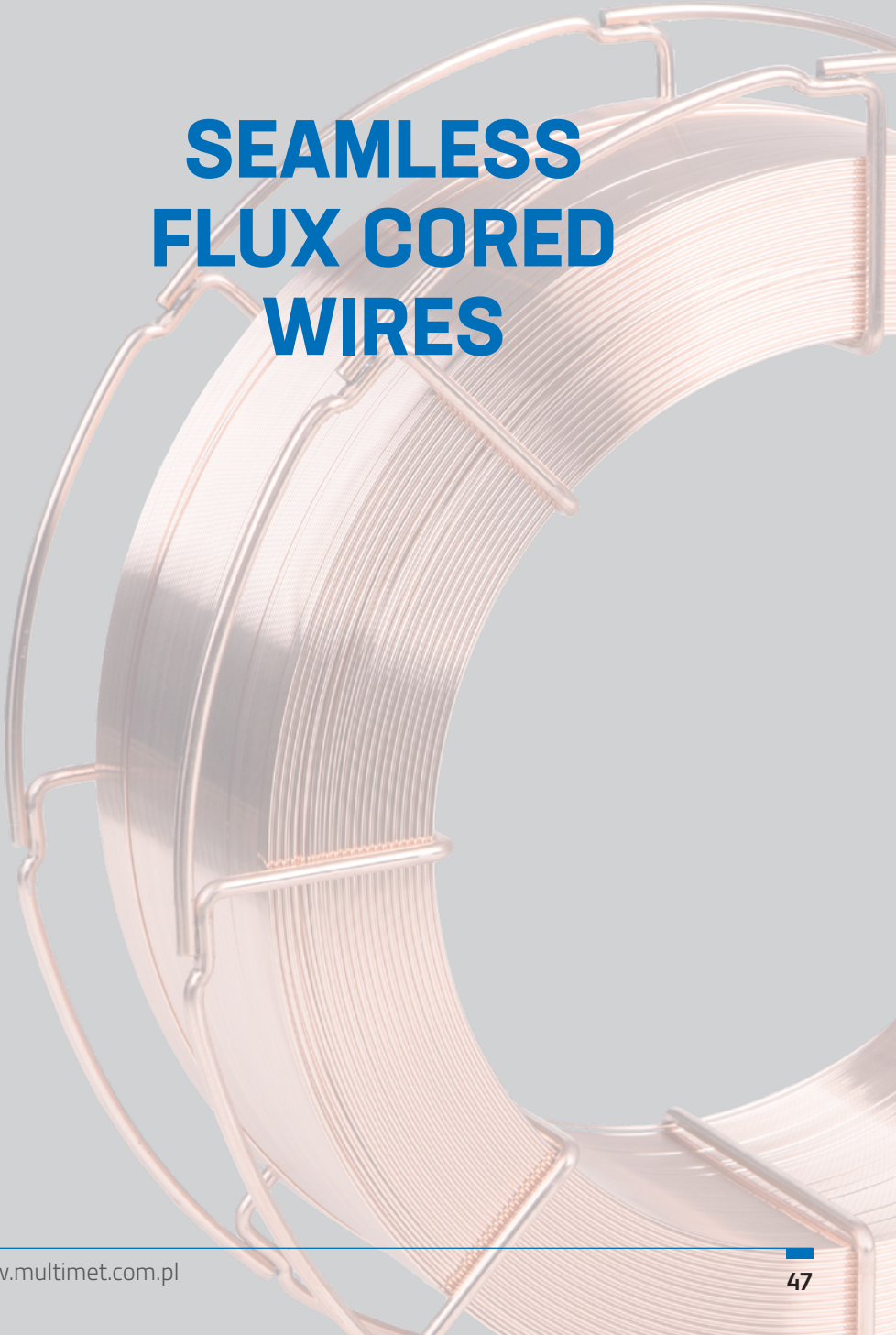
DIAMETER:

Ø mm*			
0,8	1,0	1,2	1,6

*Other diameters avaliable after agreement

FLUX CORED WIRE

SEAMLESS FLUX CORED WIRES



MULTICORE B35

CLASSIFICATIONS:

EN- ISO 14171-A: S46 6 FB T3 H5
AWS A 5.17: F7A8-EC1 / F7P8-EC1

DESCRIPTION:

MULTICORE B-35 is a seamless copper coated basic flux cored wire for SAW with an excellent quality of the joint and meets the highest requirements. Used for the welding of structural and fine grain steels in combination with fluxes TAL 3000 MV, TAL 1700. Welding with this wire enables up to 30% more cost-effective production compared to solid wire of the same diameter. The wire is used with success in applications such as offshore wind energy, platforms, shipbuilding, steel and apparatus construction, mechanical engineering and pipe work. It is very suitable for multi-layer welding (wall thickness unlimited), two-run technique up to 20mm and single-pass joint (one side welding on back up). MULTICORE B-35 is extremely crack resistant weld metal conditioned by the basic slag in combination with very low hydrogen content and does not moisture pick up. It can be stored indefinitely.

CHEMICAL COMPOSITION [%]:

C	Si	Mn	Mo	P	S
0,04	0,25	1,65	0,4	< 0,02	< 0,02

MECHANICAL PROPERTIES:

Yield Rp0,2 [MPa]:	Tensile Rm [MPa]:	Elongation A5 [%]:	Charpy ISO-V KV [J]:
> 470	550-700	> 22	> 80 (-60°C) >100 (-40°C)

APPROVALS:

TÜV	LR	ABS	DNV	BV	GL	DB	UDT

Approvals: + obtained, x on request

CURRENT:

=	+	~

DIAMETER:

Ø mm*			
1,6	2,4	4,0	5,0

*Other diameters avaliable after agreement

SAW WIRES

IMT 6

CLASSIFICATIONS:

EN ISO 14171-A: S2Mo
AWS A 5.18: GA2
Werkstoff Nr - 1.5425

DESCRIPTION:

SAW cooper coated wire, with Mo 0,5%. This product is designed for welding of construction steels, boiler steels, shipbuilding steels ans low-alloyed general purpose C-Mn steels of increased strength. It is used in the energy industry for boilers and pipe line systems also for high pressure membrane walls. The working temperature of welded joints is up to (500°C).

CHEMICAL COMPOSITION [%]:

C	Si	Mn	Mo	Cu
0,11	0,13	1,02	0,50	coating

APPROVALS:

TÜV	LR	ABS	DNV	BV	GL	DB	UDT
+			x			+	+

Approvals: + obtained, x on request

CURRENT:

=	+	~

DIAMETER:

Ø mm*						
1,6	2,0	2,4	3,0	3,2	4,0	5,0

*Other diameters avaliable after agreement

IMT 7

CLASSIFICATIONS:

EN ISO 14171-A: S1
AWS A 5.17: EL12
Werkstoff Nr - 1.0351

DESCRIPTION:

SAW copper coated wire for general purpouse application.

CHEMICAL COMPOSITION [%]:

C	Si	Mn	Cu
0,07	0,08	0,45	coating

APPROVALS:

TÜV	LR	ABS	DNV	BV	GL	DB	UDT
+						+	

Approvals: + obtained, x on request

CURRENT:

=	+	~

DIAMETER:

Ø mm*						
1,6	2,0	2,4	3,0	3,2	4,0	5,0

*Other diameters avaliable after agreement

IMT 8

CLASSIFICATIONS:

EN ISO 14171-A: S3
AWS A 5.17: EH10K
Werkstoff Nr - 1.0496

DESCRIPTION:

SAW copper coated wire, manganese alloyed. Suitable for welding medium and high tensile strength steels.

CHEMICAL COMPOSITION [%]:

C	Si	Mn	Cu
0,12	0,21	1,54	coating

APPROVALS:

TÜV	LR	ABS	DNV	BV	GL	DB	UDT
+			x			+	+

Approvals: + obtained, x on request

CURRENT:

= + ~

DIAMETER:

Ø mm*						
1,6	2,0	2,4	3,0	3,2	4,0	5,0

*Other diameters avaliable after agreement

IMT 8 Si

CLASSIFICATIONS:

EN ISO 14171-A: S3Si
AWS A 5.17: EH12K

DESCRIPTION:

SAW copper coated wire, manganese alloyed. Suitable for welding medium and high tensile strength steels.

CHEMICAL COMPOSITION [%]:

C	Si	Mn
0,12	0,30	1,70

APPROVALS:

TÜV	LR	ABS	DNV	BV	GL	DB	UDT
x	x		x		x	x	

Approvals: + obtained, x on request

CURRENT:

=	+	~

DIAMETER:

Ø mm*						
1,6	2,0	2,4	3,0	3,2	4,0	5,0

*Other diameters avaliable after agreement

IMT 8 Mo

CLASSIFICATIONS:

EN ISO 14171-A: S3Mo
AWS A 5.23: EA4

DESCRIPTION:

SAW copper coated wire manganese alloyed with addition of 0,5% Mo. Suitable for welding medium and high tensile strength steels.

CHEMICAL COMPOSITION [%]:

C	Si	Mn	Mo	Cr	Ni	P	S
0,13	0,13	1,45	0,48	0,07	0,08	0,009	0,007

APPROVALS:

TÜV	LR	ABS	DNV	BV	GL	DB	UDT
x						x	

Approvals: + obtained, x on request

CURRENT:

=	+	~

DIAMETER:

Ø mm*						
1,6	2,0	2,4	3,0	3,2	4,0	5,0

*Other diameters avaliable after agreement

IMT 8 Ni1Mo

CLASSIFICATIONS:

EN ISO 14171-A: S3Ni1Mo
AWS A 5.23: EG

DESCRIPTION:

SAW copper coated wire, with additional of Ni=0,90% and Mo=0,525%. IMT 8 Ni1Mo is suitable for medium and high tensile strenght steels.

CHEMICAL COMPOSITION [%]:

C	Si	Mn	Mo	Ni
0,11	0,17	1,55	0,525	0,90

APPROVALS:

TÜV	LR	ABS	DNV	BV	GL	DB	UDT
x						x	

Approvals: + obtained, x on request

CURRENT:

=	+	~

DIAMETER:

Ø mm*						
1,6	2,0	2,4	3,0	3,2	4,0	5,0

*Other diameters avaliable after agreement

IMT 8 Ni2.5CrMo

CLASSIFICATIONS:

EN ISO 26304: S3Ni2.5CrMo
AWS A 5.23: EG

DESCRIPTION:

SAW copper coated wire, with addition of 2,5% Ni, 1,5% Mn, 0,65% Cr. Suitable for welding of high strength steels.

CHEMICAL COMPOSITION [%]:

C	Si	Mn	Mo	Cr	Ni
0,07 - 0,15	0,10 - 0,25	1,20 - 1,80	0,40 - 0,70	0,30 - 0,85	2,00 - 2,60

APPROVALS:

TÜV	LR	ABS	DNV	BV	GL	DB	UDT
+			x		x	x	x

Approvals: + obtained, x on request

CURRENT:

= +	~

DIAMETER:

Ø mm*						
1,6	2,0	2,4	3,0	3,2	4,0	5,0

*Other diameters avaliable after agreement

IMT 9

CLASSIFICATIONS:

EN ISO 14171-A: S2
AWS A 5.17: EM12
Werkstoff Nr - 1.0351

DESCRIPTION:

SAW copper coated wire suitable for welding of unalloyed and low-alloyed steels.

CHEMICAL COMPOSITION [%]:

C	Si	Mn	Cu
0,09	0,14	1,00	coating

APPROVALS:

TÜV	LR	ABS	DNV	BV	GL	DB	UDT
+	+	+	+	+	+	+	+

Approvals: + obtained, x on request

CURRENT:

=	+	~

DIAMETER:

Ø mm*						
1,6	2,0	2,4	3,0	3,2	4,0	5,0

*Other diameters avaliable after agreement

IMT 9 Si

CLASSIFICATIONS:

EN ISO 14171-A: S2Si
AWS A 5.17: EM12K
Werkstoff Nr - 1.0351

DESCRIPTION:

SAW copper coated wire suitable for welding of unalloyed and low-alloyed steels.

CHEMICAL COMPOSITION [%]:

C	Si	Mn	Cu
0,11	0,24	0,92	coating

APPROVALS:

TÜV	LR	ABS	DNV	BV	GL	DB	UDT
+						+	

Approvals: + obtained, x on request

CURRENT:

=	+	~

DIAMETER:

Ø mm*						
1,6	2,0	2,4	3,0	3,2	4,0	5,0

*Other diameters avaliable after agreement

IMT 9 Ni2

CLASSIFICATIONS:

EN ISO 14171-A: S2Ni2
AWS A 5.23: ENi2
Werkstoff Nr - 1.6227

DESCRIPTION:

SAW copper coated wire with addition 2% Ni. Suitable for welding of low- alloyed and low temperature steels.

CHEMICAL COMPOSITION [%]:

C	Si	Mn	Ni	Cu
0,075	0,13	1,04	2,46	coating

APPROVALS:

TÜV	LR	ABS	DNV	BV	GL	DB	UDT
+			x				

Approvals: + obtained, x on request

CURRENT:

= + ~

DIAMETER:

Ø mm*						
1,6	2,0	2,4	3,0	3,2	4,0	5,0

*Other diameters avaliable after agreement

IMT 9 CrMo1

CLASSIFICATIONS:

EN ISO 24598-A: S CrMo1
AWS A 5.23: EB2R

DESCRIPTION:

SAW copper coated wire with addition of 1,1% Cr, 0,5% Mo. Suitable for welding of creep resistance steels.

CHEMICAL COMPOSITION [%]:

C	Si	Mn	Mo	Cr	Ni	P	S
0,10	0,16	0,73	0,53	1,25	0,04	0,005	0,004

APPROVALS:

TÜV	LR	ABS	DNV	BV	GL	DB	UDT
x						x	

Approvals: + obtained, x on request

CURRENT:

=	+	~

DIAMETER:

Ø mm*						
1,6	2,0	2,4	3,0	3,2	4,0	5,0

*Other diameters avaliable after agreement

IMT 9 CrMo2

CLASSIFICATIONS:

EN ISO 24598-A: S CrMo2
AWS A 5.23: EB3R

DESCRIPTION:

SAW copper coated wire with addition of 2,39% Cr, 1% Mo. Suitable for welding of creep resistance steels.

CHEMICAL COMPOSITION [%]:

C	Si	Mn	Mo	Cr	Ni	P	S
0,11	0,16	0,63	1,01	2,39	0,05	0,004	0,004

APPROVALS:

TÜV	LR	ABS	DNV	BV	GL	DB	UDT
x						x	

Approvals: + obtained, x on request

CURRENT:

=	+	~

DIAMETER:

Ø mm*						
1,6	2,0	2,4	3,0	3,2	4,0	5,0

*Other diameters avaliable after agreement

WELDING FLUXES

TAL 800

CLASSIFICATIONS:

EN ISO 14174 SA AR 1 76 AC H5

DESCRIPTION:

TAL 800 is acid aglomerated flux designed for all submerg arc welding processes of carbon-manganese, low alloy structural and boiler quality steels with Re<355MPa combined with following wires S1, S2, S2Si, S2Mo, S2CrMo1, S2CrMo2. Desgined for welding with AC, DC current. TAL 800 is excellent for high speed welding up to 2m/min. Provides very smooth weld apperance, excellent slag removal even in narrow gap welding. Chemical composition of the flux provide high resistance to cracking.

CHEMICAL COMPOSITION [%]:

CaO + MgO	Al_2O_3 + MnO	CaF_2	SiO_2 + TiO_2
5%	55%	10%	25%

BONISZEWSKI COEFFICIENT:

~ 0,6

CHEMICAL ANALYSIS OF THE WELD METAL [%]:

	C	Si	Mn	Cr	Mo	Ni
S1	0,04-0,08	0,3-0,6	0,8-1,1			
S2	0,04-0,08	0,3-0,6	1,0-1,4			
S2Si	0,04-0,08	0,4-0,8	1,0-1,4			
S2Mo	0,04-0,08	0,3-0,7	1,0-1,4		0,4-0,6	
S CrMo1	0,04-0,08	0,3-0,7	0,9-1,3	1,0	0,4-0,6	

MECHANICAL PROPERTIES OF THE WELD METAL:

	Re [MPa]	Rm [MPa]	A5 [%]	KV [J]		
				+20°C	0°C	-20°C
S1	400	510	24	70	40	
S2	420	530	22	70	47	
S2Si	430	540	22	70	47	
S2Mo	480	580	20	60	47	
S CrMo1	520	610	20	50		

ADDITIONAL INFORMATION:

FLUX DENSITY	GRAIN SIZE ACC. TO DIN EN ISO 14174	CURRENT - CARRYING CAPACITY	PACKAGING
1,0 kg/dm_3 (lt.)	2-12, 2-16, 2-20	800 A (DC or AC) using on wire	25 kg bags, 1 000 kg big bags

TAL 1700

CLASSIFICATIONS:

EN ISO 14174 SA AB 1 67 AC H5

DESCRIPTION:

TAL 1700 is basic aglomerated flux designed for submerg arc welding of low alloy, fine grained steels with Re<460 MPa combined with following wires S1, S2, S2Si, S2Mo, S2Ni2. Desgined for welding with AC, DC current. It is suitable for the two-run or multilayer technique using single or multi wire processes. The flux is keeping constant metalurgical characteristics which provides excellent mechanical properties and easy slag relase even in narrow gap welding.

CHEMICAL COMPOSITION [%]:

CaO + MgO	Al_2O_3 + MnO	CaF_2	SiO_2 + TiO_2
30%	30%	15%	20%

BONISZEWSKI COEFFICIENT:

~ 1,7

CHEMICAL ANALYSIS OF THE WELD METAL [%]:

	C	Si	Mn	Cr	Mo	Ni
S2	0,05-0,08	0,2-0,4	1,1-1,5			
S2Si	0,05-0,08	0,2-0,4	1,1-1,5		0,5	
S2Mo	0,05-0,08	0,2-0,4	1,1-1,5			2,0
S CrMo1	0,05-0,08	0,2-0,4	1,0-1,4	1,0	0,5	

MECHANICAL PROPERTIES OF THE WELD METAL:

	Re [MPa]	Rm [MPa]	A5 [%]	KV [J]		
				+20°C	0°C	-20°C
S2	420	510	24	160	120	60
S2Si	500	590	22	140	90	40
S2Mo	480	580	20		130	
S CrMo1	400	520	22	80	47	

ADDITIONAL INFORMATION:

FLUX DENSITY	GRAIN SIZE ACC. TO DIN EN ISO 14174	CURRENT - CARRYING CAPACITY	PACKAGING
1,1 kg/dm_3 (lt.)	2	1000 A (DC or AC) using on wire	25 kg bags, 1 000 kg big bags

TAL 1720

CLASSIFICATIONS:

EN ISO 14174 SA AB 1 67 AC H5

DESCRIPTION:

TAL 1720 is basic aglomeratem flux designer for submerg arc welding of low alloy, fine grained steel combined with following wires S1, S2, S2Si, S2Mo. Designed for welding with AC, DC current. It is suitable for the two-run or multilayer technique using single or multi wire processes. Additional advantage is the easy slag relase and very low hydrogen diffusion (<4ml/100g weld).

CHEMICAL COMPOSITION [%]:

CaO + MgO	Al_2O_3 + MnO	CaF_2	SiO_2 + TiO_2
25%	40%	10%	20%

BONISZEWSKI COEFFICIENT:

~ 1,8

CHEMICAL ANALYSIS OF THE WELD METAL [%]:

	C	Si	Mn	Cr	Mo	Ni
S1	0,05-0,08	0,2-0,4	0,9-1,3			
S2	0,05-0,08	0,2-0,4	1,4-1,8			
S2Si	0,05-0,08	0,2-0,5	1,4-1,8			
S2Mo	0,04-0,08	0,2-0,4	1,3-1,7		0,5	

MECHANICAL PROPERTIES OF THE WELD METAL:

	Re [MPa]	Rm [MPa]	A5 [%]	KV [J]				
				0°C	-20°C	-40°C	-51°C	-73°C
S1	> 400	> 510	> 24	> 140	> 100	> 50	70	70
S2	> 420	> 500	> 22			> 90	> 60	> 47
S2Si	> 430	> 560	> 22			> 90	> 60	> 47
S2Mo	> 490	> 570	> 20	> 130	> 80	> 60	> 47	> 27

ADDITIONAL INFORMATION:

FLUX DENSITY	GRAIN SIZE ACC. TO DIN EN ISO 14174	CURRENT - CARRYING CAPACITY	PACKAGING
1,1 kg/dm_3 (lt.)	2-16, 2-20	1500 A (DC or AC)	25 kg bags, 1 000 kg big bags

TAL 3000

CLASSIFICATIONS:

EN ISO 14174 SA FB 1 55 AC H5

DESCRIPTION:

TAL 3000 is high basicity aglomerated flux with low impurity levels such as phosphorus and sulphur. It is suitable for DC and AC current. As the result of low oxygen levels in the weld deposits excellent mechanical properties can be achived. Becaues of the almost neutral slag reactions the chemical analysis of the weld metal can be excellently controlled by the selection of appropriate wire electrodes.

CHEMICAL COMPOSITION [%]:

CaO + MgO	Al_2O_3 + MnO	CaF_2	SiO_2 + TiO_2
40%	20%	25%	15%

BONISZEWSKI COEFFICIENT:

~ 3,0

CHEMICAL ANALYSIS OF THE WELD METAL [%]:

	C	Si	Mn	Cr	Mo	Ni
S2	0,06-0,09	0,1-0,3	0,8-1,2			
S3	0,06-0,06	0,1-0,3	1,1-1,5		0,5	
S2Mo	0,06-0,09	0,1-0,3	0,8-1,2		0,5	2,0
S2Ni2	0,06-0,09	0,1-0,3	0,8-1,2			2,5
S3Ni2,5CrMo	0,06-0,09	0,1-0,3	1,2-1,6	0,5	0,5	
S CrMo1	0,06-0,09	0,1-0,3	0,5-0,9	1,2	0,5	

MECHANICAL PROPERTIES OF THE WELD METAL:

	Re [MPa]	Rm [MPa]	A5 [%]	KV [J]		
				-20°C	-40°C	-60°C
S2	400	490	26	130	70	60
S3	450	530	25	130	80	0
S2Mo	490	570	23	110	47	80
S2Ni2	460	550	25	140	120	
S3Ni2,5CrMo	740	820	18	90	70	
S CrMo1	420	520	22	47	130	

GRAIN SIZE ACC. TO DIN EN ISO 14174	PACKAGING	STORAGE	REDRYING RECOMMENDATION
2-20	25 kg PE - coated Aluminum bags	The flux should be stored in dry storage rooms	Redry flux at 300°C to 350°C effective flux temperature

SOLID WIRES

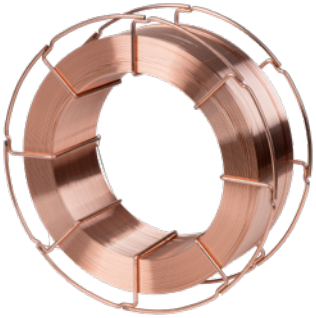
PRODUCT	TÜV	LR	ABS	DNV	BV	GL	DB	UDT
IMT 2	+	+	+	+	+	+	+	+
IMT 2E	+						+	
IMT 3	+	+	+	+	+	+	+	+
IMT 3E	+						+	
IMT Mo	+						+	+
IMT CrMo1Si	+						+	
IMT CrMo2Si	x						x	
IMT CrMo91	x							
IMT CORTEN	+						+	
IMT NiMoCr	+						+	
IMT NiMoCr-2							x	
IMT NiMoCr-2,5							+	
IMT G2Ni2	+						x	
IMT 307 Si	+						+	
IMT 308 LSi	+						+	
IMT 309 LSi	+						+	
IMT 316 LSi	+						+	
IMT AlSi 5	x	x		x		x	x	
IMT AlSi 12	x	x		x		x	x	
IMT AlMg 5	x	x		x		x	x	
IMT AlMg4,5Mn	x	x		x		x	x	
IMT AlMg4,5MnZr	x	x		x		x	x	
IMT M700	+	+	+	+	+	+	+	
IMT M700Ni	+		+	+		+	+	

Approvals: + obtained, x on request

FLUX CORED WIRES

PRODUCT	TÜV	LR	ABS	DNV	BV	GL	DB	UDT
IMT R711	+	+	+	+	+	+	+	
IMT R711Ni	+	+		+				
IMT R811	+	+	+	+	+	+	+	
IMT M CORTEN	x						x	
IMT R CrMo1	x						x	
IMT M CrMo1	x						x	
IMT R CrMo2	x						x	
IMT M CrMo2	x						x	
IMT R NiMoCr	x	x		x	x	x	x	
IMT M NiMoCr	x	x		x	x	x	x	
IMT M NiMoCr-2	x			x			x	
IMT 6	+			x			+	+
IMT 7	+						+	
IMT 8	+						+	
IMT 8 Si	x	x		x		x	x	
IMT 8 Mo	x						x	
IMT 8 Ni1Mo	x						x	
IMT 8 Ni2.5CrMo	+			x		x	x	x
IMT 9	+	+	+	+	+	+	+	+
IMT 9 Si	+						+	
IMT 9 Ni2	+			x				
IMT 9 CrMo1	x			x				
IMT 9 CrMo2	x						x	

Approvals: + obtained, x on request



Type of spool: K300

Precision layer spooling

Ø mm*			
0,8	1,0	1,2	1,6

*Other diameters avaliable after agreement

Type of spool: K415

Precision layer spooling

Ø mm*						
1,6	2,0	2,4	3,0	3,2	4,0	5,0

*Other diameters avaliable after agreement

Type of spool: D200

Precision layer spooling

Ø mm*				
0,8	0,9	1,0	1,2	1,4

*Other diameters avaliable after agreement

Drum 250 kg

Precision layer spooling

Ø mm*					
0,8	1,0	1,2	1,6	2,0	2,4

*Other diameters avaliable after agreement

Drum 500 kg

Precision layer spooling

Ø mm*					
0,8	1,0	1,2	1,6	2,0	2,4

*Other diameters avaliable after agreement

Rack System max. 1250 kg

Precision layer spooling

Ø mm*						
1,2	1,6	2,0	2,4	3,2	4,0	5,0

*Other diameters avaliable after agreement

DNV·GL

Certificate No: TAW00000G6

VERIFICATION STATEMENT

This is to verify:
That the Flux Cored Wire/Gas combination

with trade name
IMT R811 / M21

Distributed by
Multimet Sp. z o.o.
PRZEMKOW, Poland

is found to comply with
Det Norske Veritas' Rules for Classification PT.2

with this approval

Grade	**V Y46MS(H5)**
Current	**DC(+)**
Approved diameter	**1.2 mm - 1.6 mm**
Positions	**All**
Remarks	**Also for fillet welding**

This Statement is valid until **2019-10-21**.
Issued at **Høvik** on **2015-10-22**

DNV GL local station: **Katowice**

Approval Engineer: **Maxim Bobrov**

for **DNV GL**

Hanne Anita Hjerpetjønn
Head of Section

This Verification Statement is valid provided the manufacturers approval is maintained.

Form code: WELD 1422a Revision: 2015-04 www.dnvgl.com Page 1 of 1

VdTÜV-Kennblatt für Schweißzusätze

1 Hersteller/Lieferer:	"Multimet" Sp. z o.o. PL-59-170 Przemkow (Polen)
3 Schweißzusatz:	Drahtelektrode
4 Marke:	IMT 2
7 Typ:	EN ISO 14341-A - G3Si 1
11 Durchmesserbereich:	0,8 - 1,6 mm
12 Hilfsstoffe:	EN ISO 14175 - M2, M3, C
23 Wanddicke:	30 mm
24 Stromart und Polung:	G+
25 Schweißposition nach DIN ISO 6947:	PA, PB, PC, PE, PF
26 Höchste Betriebstemperatur im Kurzzeitbereich:	450 °C
28 Tiefste Betriebstemperatur:	-40 °C
29 Berechnungskennwert:	wie Grundwerkstoff
32 Bemerkungen:	1) Spannungsarmgeglüht nur unter Schutzgas M2
35 Erstellt durch:	TÜV Rheinland Group

*) Herausgeber: Verband der TÜV e.V.

URZĄD DOZORU TECHNICZNEGO
ODDZIAŁ WE WROCŁAWIU

Załącznik do decyzji
Nr W-28-3
z dnia 20.06.2001

ZAKRES UPRAWNIENIA

„MULTIMET" Sp. z o.o.
UL. FABRYCZNA 10
59-170 PRZEMKÓW

jest uprawniony do wytwarzania następujących drutów spawalniczych:

Oznaczenie				
G2Si1			IMT 1	0,8÷1,6
G4Si1			IMT 3	0,8÷1,6
G2Mo			IMT Mo	0,8÷1,6
	S2Mo		IMT6	1,6÷4,0
	S2		IMT 7	1,6÷4,0

* - zalecana przez producenta kombinacja drut + topnik

VdTÜV-Kennblatt for welding consumables

1 Manufacturer/Supplier	"Multimet" Sp. z o. o. ul. Fabryczna 10 POL 59-170 Przemkow
2 No. of VdTÜV-Kennblatt	18846.00 14.12.2015
3 Welding consumable*:	Fülldrahtelektrode
4 Trade name*:	IMT R811
7 Type*:	EN ISO 17632-A - T 50 6 1Ni P M 1 H5 / T 46 5 1Ni P C 1 H5
11 Diameter range:	1,2 bis 1,6 mm
12 Auxiliary materials:	Gase EN 14175 - C1, M21-M23
21 Root weldability:	not verified
23 Wall thickness:	unbegrenzt
24 Type of current and polarity:	G+
25 Welding position according to DIN ISO 6947:	PA, PB, PC, PD, PE, PF
26 Highest operating temperature in the short-term range:	350 °C
28 Lowest operating temperature:	2) -60 °C
29 Design stress values for parent metal:	wie Grundwerkstoff
35 Compiled in accordance with the data of:	TÜV SÜD Industrie Service GmbH, München

32 Remarks:
1) Wärmebehandlung 5 nur für Elektroden-Durchmesser 1,2 mm; mit Schutzgas M21: bis ReH max. 500 MPa, mit Schutzgas C1 bis M22: bis ReH max. 460 MPa
2) mit Schutzgas M21 bis -60 °C; mit Schutzgas C1 - M22 nur bis -50 °C

*) Statements of the manufacturer

VdTÜV-Kennblatt für Schweißzusätze

1 Hersteller/Lieferer:	"Multimet" Sp. z o. o. ul. Fabryczna 10 POL 59-170 Przemkow
2 Kennblatt-Nummer:	18843.00 14.12.2015
3 Schweißzusatz*:	Fülldrahtelektrode
4 Marke*:	IMT M700
7 Typ*:	EN ISO 17632-A - T 46 6 M M 1 H5 / T 42 5 M C 1 H5
11 Durchmesserbereich:	1,2 bis 1,6 mm
12 Hilfsstoffe:	Gase EN ISO 14175 - M2; M3; C
21 Wurzelschweißbarkeit:	nachgewiesen
23 Wanddicke:	unbegrenzt (2)
24 Stromart und Polung:	G+, G-
25 Schweißposition nach DIN ISO 6947:	PA, PB, PC, PD, PE, PF, PG
26 Höchste Betriebstemperatur im Kurzzeitbereich:	350 °C
28 Tiefste Betriebstemperatur:	(3) -60 °C
29 Berechnungskennwert:	wie Grundwerkstoff
35 Erstellt durch:	TÜV SÜD Industrie Service GmbH, München

32 Bemerkungen:
(1) Für Schutzgas C1 begrenzt auf ReH max. 420 MPa
(2) unter Berücksichtigung der Festlegungen der EN 14532-1, Anhang G
(3) mit Schutzgas M2: -60 °C; mit Schutzgas C: -50 °C
(4) Für Polung G- beschränkt auf ReH max. 360 Mpa
(5) Position PG nur für Polung G- qualifiziert.
(6) nur mit Schutzgas M2

*) Angaben des Herstellers

VdTÜV-Kennblatt for welding consumables

1 Manufacturer/Supplier	"Multimet" Sp. z o. o. ul. Fabryczna 10 POL 59-170 Przemkow
2 No. of VdTÜV-Kennblatt	18845.00 14.12.2015
3 Welding consumable*:	Fülldrahtelektrode
4 Trade name*:	IMT R711
7 Type*:	EN ISO 17632-A - T 46 4 P M 1 H5 / T 46 2 P C 1 H5
11 Diameter range:	1,0 bis 1,6 mm
12 Auxiliary materials:	Gase EN ISO 14175 - C1, M21-M23
21 Root weldability:	verified
23 Wall thickness:	unbegrenzt
24 Type of current and polarity:	G+
25 Welding position according to DIN ISO 6947:	PA, PB, PC, PD, PE, PF, PG
26 Highest operating temperature in the short-term range:	450 °C
28 Lowest operating temperature:	-40 2) °C
29 Design stress values for parent metal:	wie Grundwerkstoff
35 Compiled in accordance with the data of:	TÜV SÜD Industrie Service GmbH, München

32 Remarks:
1) Position PE nur mit Schutzgas M21
2) für Schutzgas C1 max. -20 °C
Reh im reinen Schweißgut: > 460 Mpa

*) Statements of the manufacturer

VdTÜV-Kennblatt für Schweißzusätze

1 Hersteller/Lieferer:	ZPS "Multimet" PL-59-170 Przemkow (Polen)
3 Schweißzusatz:	Drahtelektrode für UP-Schweißung

*) Herausgeber: Verband der Technischen Überwachungs-Vereine e.V.

DB Mobility Networks Logistics

DB Systemtechnik
Zertifizierungsstelle für Schweißzusätze
32423 Minden

Zulassungszertifikat für Schweißzusätze und Schweißhilfsstoffe

Hersteller: Multimet Sp. z o.o., ul Fabryczna 10, 59170 PRZEMKOW, POLEN

Schweißzusatz:	SG-Drahtelektrode	**DB-Zulassungs-Nr.:**	42.092.01
Markenbezeichnung:	IMT 2	**Geltungsdauer:**	31.12.2016
Normbezeichnung:	DIN EN ISO 14341-A-G 42 2 C1 3Si1 DIN EN ISO 14341-A-G 46 4 M21 3Si1		

Geltungsbereich aufgrund der nach VA 918 490 durchgeführten Eignungsprüfung:

Werkstoffgruppe nach CEN ISO/TR 15608 [1]:	Mit dem Schutzgas nach DIN EN ISO 14175 - C1: 2.1 (R_{eH} ≤ 420 MPa) Mit dem Schutzgas nach DIN EN ISO 14175 - M2, M3: 2.1
Schweißprozess nach DIN EN ISO 4063:	135
Schweißpositionen nach DIN EN ISO 6947:	PA, PB, PC, PD, PE, PF, PG
Stromart und Polung:	= (+)
Durchmesserbereich:	0,8 - 1,6 mm
Bemerkungen/Schweißbedingungen:	./.

Minden, den 09.12.2013

[1] Erläuterungen zu den mitgeltenden Werkstoffen sind der VA 918 490, Anhang 3 zu entnehmen.

DB Mobility Networks Logistics

DB Systemtechnik
Zertifizierungsstelle für Schweißzusätze
32423 Minden

Zulassungszertifikat für Schweißzusätze und Schweißhilfsstoffe

Hersteller: Multimet Sp. z o.o., ul Fabryczna 10, 59170 PRZEMKOW, POLEN

Schweißzusatz:	UP-Drahtelektrode	**DB-Zulassungs-Nr.:**	52.092.01
Markenbezeichnung:	IMT 6	**Geltungsdauer:**	31.12.2016
Normbezeichnung:	DIN EN ISO 14171-A-S2Mo		

Geltungsbereich aufgrund der nach VA 918 490 durchgeführten Eignungsprüfung:

Werkstoffgruppe nach CEN ISO/TR 15608 [1]:	Je nach Zulassungsumfang des Schweißpulvers
Schweißprozess nach DIN EN ISO 4063:	121
Durchmesserbereich:	1,6 - 6,0 mm
Bemerkungen/Schweißbedingungen:	./.

Minden, den 09.12.2013

[1] Erläuterungen zu den mitgeltenden Werkstoffen sind der VA 918 490, Anhang 3 zu entnehmen.

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Marine & Offshore Division

BUREAU VERITAS

TYPE APPROVAL CERTIFICATE

as per Bureau Veritas Classification Rules

This certificate is issued to
MULTIMET Sp. z o.o.
Przemkow - POLAND

for the product
Flux-Cored Wire for Semi-Automatic or Automatic Welding with Shielding Gas

Designation	: IMT M700
Description	: Gas Shield Argon 80% CO2 20%
Diameter	: 1.2 - 1.4 - 1.6 mm
Welding current	: DC (P)
Welding position	: Flat butt weld (PA bw), Vertical upwards butt weld (PF bw), Horizontal vertical butt weld (PC bw), Horizontal vertical fillet weld (PB fw)
Remark	: Nil.

This certificate will expire on: 09 Dec 2015

For BUREAU VERITAS,
By order of the Secretary

Local office: BV KATOWICE

DB Mobility Networks Logistics

DB Systemtechnik
Zertifizierungsstelle für Schweißzusätze
32423 Minden

Zulassungszertifikat für Schweißzusätze und Schweißhilfsstoffe

Hersteller: Multimet Sp. z o.o., ul Fabryczna 10, 59170 PRZEMKOW, POLEN

Schweißzusatz:	SG-Fülldrahtelektrode	**DB-Zulassungs-Nr.:**	42.092.14
Markenbezeichnung:	IMT M 700	**Geltungsdauer:**	30.11.2018
Normbezeichnung:	DIN EN ISO 17632-A-T 42 5 M C 1 H5 DIN EN ISO 17632-A-T 46 6 M M 1 H5		

Geltungsbereich aufgrund der nach VA 918 490 durchgeführten Eignungsprüfung:

Werkstoffgruppe nach CEN ISO/TR 15608 [1]:	Mit den Schutzgasen nach DIN EN ISO 14175 - C1: 2.1 (R_{eH} ≤ 420 MPa) Mit den Schutzgasen nach DIN EN ISO 14175 - M2, M3: 2.1
Schweißprozess nach DIN EN ISO 4063:	138
Schweißpositionen nach DIN EN ISO 6947:	PA, PB, PC, PD, PE, PF, PG
Stromart und Polung:	= (+)
Durchmesserbereich:	1,2 - 1,6 mm
Bemerkungen/Schweißbedingungen:	./.

Minden, den 06.11.2015

[1] Erläuterungen zu den mitgeltenden Werkstoffen sind der VA 918 490, Anhang 3 zu entnehmen.

DB Mobility Networks Logistics

DB Systemtechnik
Zertifizierungsstelle für Schweißzusätze
32423 Minden

Zulassungszertifikat für Schweißzusätze und Schweißhilfsstoffe

Hersteller: Multimet Sp. z o.o., ul Fabryczna 10, 59170 PRZEMKOW, POLEN

Schweißzusatz:	SG-Fülldrahtelektrode	**DB-Zulassungs-Nr.:**	42.092.15
Markenbezeichnung:	IMT R 711	**Geltungsdauer:**	30.11.2018
Normbezeichnung:	DIN EN ISO 17632-A-T 46 2 P C 1 H5 DIN EN ISO 17632-A-T 46 4 P M 1 H5		

Geltungsbereich aufgrund der nach VA 918 490 durchgeführten Eignungsprüfung:

Werkstoffgruppe nach CEN ISO/TR 15608 [1]:	Mit den Schutzgasen nach DIN EN ISO 14175 - C1, M2, M3: 2.1
Schweißprozess nach DIN EN ISO 4063:	136
Schweißpositionen nach DIN EN ISO 6947:	PA, PB, PC, PD, PE, PF, PG
Stromart und Polung:	= (+)
Durchmesserbereich:	1,0 - 1,6 mm
Bemerkungen/Schweißbedingungen:	./.

Minden, den 06.11.2015

[1] Erläuterungen zu den mitgeltenden Werkstoffen sind der VA 918 490, Anhang 3 zu entnehmen.

DB Mobility Networks Logistics

DB Systemtechnik
Zertifizierungsstelle für Schweißzusätze
32423 Minden

Zulassungszertifikat für Schweißzusätze und Schweißhilfsstoffe

Hersteller: Multimet Sp. z o.o., ul Fabryczna 10, 59170 PRZEMKOW, POLEN

Schweißzusatz:	SG-Fülldrahtelektrode	**DB-Zulassungs-Nr.:**	42.092.17
Markenbezeichnung:	IMT R 811	**Geltungsdauer:**	30.11.2018
Normbezeichnung:	DIN EN ISO 17632-A-T 46 5 1Ni P C 1 H5 DIN EN ISO 17632-A-T 50 6 1Ni P M 1 H5		

Geltungsbereich aufgrund der nach VA 918 490 durchgeführten Eignungsprüfung:

Werkstoffgruppe nach CEN ISO/TR 15608 [1]:	Mit den Schutzgasen nach DIN EN ISO 14175 - C1: 2.2 Mit den Schutzgasen nach DIN EN ISO 14175 - M2, M3: 3.1 (R_{eH} = 355 - 500 MPa)
Schweißprozess nach DIN EN ISO 4063:	136
Schweißpositionen nach DIN EN ISO 6947:	PA, PB, PC, PD, PE, PF
Stromart und Polung:	= (+)
Durchmesserbereich:	1,2 - 1,6 mm
Bemerkungen/Schweißbedingungen:	./.

Minden, den 06.11.2015

[1] Erläuterungen zu den mitgeltenden Werkstoffen sind der VA 918 490, Anhang 3 zu entnehmen.

VdTÜV-Kennblatt für Schweißzusätze

1 Hersteller/Lieferer:	"Multimet" Sp. z o. o. ul. Fabryczna 10 POL 59-170 Przemkow
2 Kennblatt-Nummer:	18843.00 14.12.2015
3 Schweißzusatz*:	Fülldrahtelektrode
4 Marke*:	IMT M700
7 Typ*:	EN ISO 17632-A - T 46 6 M M 1 H5 / T 42 5 M C 1 H5
11 Durchmesserbereich:	1,2 bis 1,6 mm
12 Hilfsstoffe:	Gase EN ISO 14175 - M2; M3; C
21 Wurzelschweißbarkeit:	nachgewiesen
23 Wanddicke:	unbegrenzt (2)
24 Stromart und Polung:	G+, G-
25 Schweißposition nach DIN ISO 6947:	PA, PB, PC, PD, PE, PF, PG
26 Höchste Betriebstemperatur im Kurzzeitbereich:	350 °C
28 Tiefste Betriebstemperatur:	(3) -60 °C
29 Berechnungskennwert:	wie Grundwerkstoff
35 Erstellt durch:	TÜV SÜD Industrie Service GmbH, München

32 Bemerkungen:
(1) Für Schutzgas C1 begrenzt auf ReH max. 420 MPa
(2) unter Berücksichtigung der Festlegungen der EN 14532-1, Anhang G
(3) mit Schutzgas M2: -60 °C; mit Schutzgas C: -50 °C
(4) Für Polung G- beschränkt auf ReH max. 360 Mpa
(5) Position PG nur für Polung G- qualifiziert.
(6) nur mit Schutzgas M2

*) Angaben des Herstellers

ZERTIFIKAT ■ CERTIFICATE ■ СЕРТИФИКАТ ■ CERTIFICADO ■ CERTIFICAT

TÜV Management Service

CERTYFIKAT

Jednostka certyfikująca
TÜV SÜD Management Service GmbH
zaświadcza, że przedsiębiorstwo

Multimet
Inżynieria spawalnicza

MULTIMET Sp. z o.o
ul. Fabryczna 10
59-170 Przemków
Polska

wdrożyło i stosuje
system zarządzania jakością w zakresie

Produkcja drutów spawalniczych, handel materiałami i akcesoriami spawalniczymi.

Na podstawie auditu, numer sprawozdania: **707052789**, potwierdza się spełnienie wymagań normy

ISO 9001:2008.

Niniejszy certyfikat jest ważny od **2015-12-11** do **2018-12-07**
Numer rejestracyjny certyfikatu: **12 100 51079 TMS.**

Product Compliance Management
München, 2015-12-10

DNV

DET NORSKE VERITAS

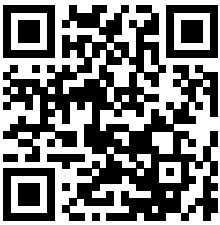
TYPE APPROVAL CERTIFICATE

Multimet Sp. z o.o.
PRZEMKOW, Poland

is found to comply with
Det Norske Veritas' Rules for Classification PT.2

with this approval

DNV local office Katowice



Multimet®

TÜV CERT
DIN EN ISO 9001:2000

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