

# WELDING WIRES



**METALURGIA S.A.**  
**RADOMSKO**

Member of TŘINECKÉ ŽELEZÁRNY - MORAVIA STEEL Group

# HOT WELD M

Welding electrode wire for inert gas arc welding

## Classification:

DIN 8559	PN-EN ISO 14341-A	AWS A5.18
SG2	3Si1	ER 70S-6

## Characteristics / application:

Welding electrode wire, coated with copper with the addition of deoxidisers Mn and Si for semi-automatic welding under the protective atmosphere of CO<sub>2</sub> and under the mixture of M2 and M3. Mechanical properties of this wire ensure high quality of fusion welds and unfailling feeding of wire in mechanical welding process. This wire is designed for welding of unalloyed construction steel, boiler steel and ship steel.

## Typical chemical composition of the wire [%]:

C	Si	Mn
0,08	0,90	1,50

## Typical mechanical properties of the weld metal:

Yield point [Re]: > 420 MPa  
Tensile strength [Rm]: 500÷640 MPa  
Elongation [A<sub>5</sub>]: > 20 %  
Impact energy [KV] in temp – 40 ° C: > 47 J  
Impact energy [KV] in temp – 20 ° C: > 47 J

Approvals: DB, TÜV





**Dimensions range and packaging options:**

Packaging of wire:	Wire diameter [mm]				
	0,60	0,80	1,00	1,20	1,60
precision layer wound on the wire basket type K300 and plastic spool type D300 wire weight on the basket/spool ca'15kg wire packed in the foil, bag and cartoon quantity of cartoons on the pallet: 72 pcs. (1080 kg)		X	X	X	X
precision layer wound on the plastic spool type „1100” (D200) wire weight on the spool ca'5kg wire packed in the foil, bag and cartoon quantity of cartoons on the pallet: 200pcs. (1000 kg)	X	X	X	X	
wire in a special wound delivered inertialess wire weight in the drum: ca'250kg quantity of drums on the pallet: 4 pcs. (1000kg)			X	X	

x - standard



# HOT WELD MS

Welding electrode wire for inert gas arc welding

## Classification:

DIN 8559	PN-EN ISO 14341-A	AWS A5.18
SG3	4Si1	ER 70S-6

## Characteristics / application:

Welding electrode wire, coated with copper with the addition of deoxidisers Mn and Si for semi-automatic welding under the protective atmosphere of CO<sub>2</sub> and under the mixture of M2 and M3. Increased content of Mn provides higher strength of the fusion weld compared with HOT WELD M wire. Mechanical properties of this wire ensure high quality of fusion welds and unfailing feeding of wire in mechanical welding process. This wire is designed for welding of unalloyed construction steel, boiler steel and ship steel.

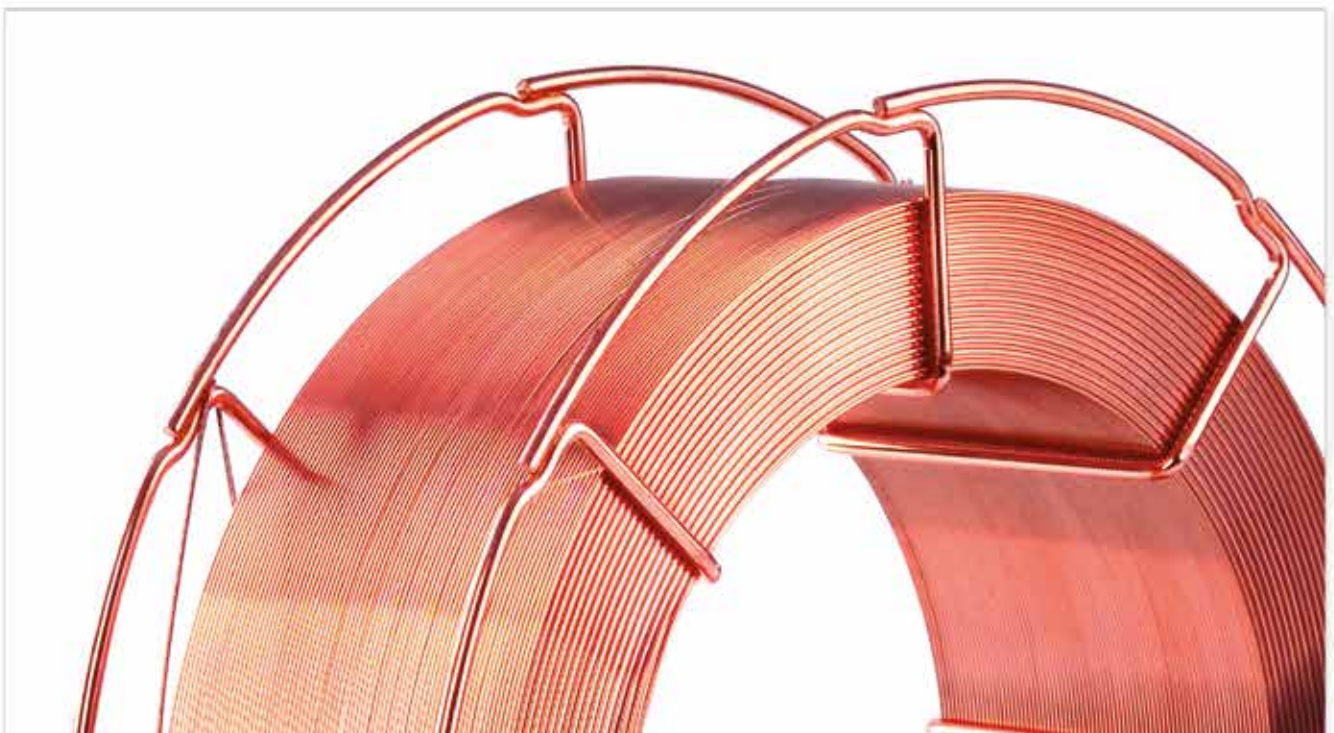
## Typical chemical composition of the wire [%]:

C	Si	Mn
0,08	0,90	1,65

## Typical mechanical properties of the weld metal:

Yield point [Re]:	> 460 MPa
Tensile strength [Rm]:	530 ÷ 680 MPa
Elongation [A <sub>5</sub> ]:	> 20 %
Impact energy [KV] in temp – 40 ° C	> 47 J
Impact energy [KV] in temp – 20 ° C	> 47 J

Approvals: DB, TÜV



**Dimensions range and packaging options:**

Packaging of wire:	Wire diameter [mm]				
	0,60	0,80	1,00	1,20	1,60
precision layer wound on the wire basket type K300 and plastic spool type D300 wire weight on the basket/spool ca'15kg wire packed in the foil bag and carton quantity of cartons on the pallet: 72 pcs. (1080 kg)		x	x	x	x
wire in a special wound delivered inertialess wire weight in the drum: ca'250kg quantity of drums on the pallet: 4 pcs. (1000kg)			x	x	

x - standard



# Welding wire OI / SPG1

## Classification:

PN-EN 12536	AWS A 5.2	PN-88/M-69420
OI	R45	SPG1

## Characteristics / application:

Steel wire coated with copper and bare applied mainly for oxy-acetylene welding and for automatic welding, semi-automatic welding of low-carbon construction steel. Used for butt welds and fillet welds.

## Typical chemical composition of the wire [%]:

C	SI	Mn
max 0,10	0,03	0,35 – 0,65

## Typical mechanical properties of the weld metal:

Yield point [Re]:	330 MPa
Tensile strength [Rm]:	450 MPa
Elongation [A <sub>5</sub> ]:	20 %



## Dimensions range and packaging options:

Packaging of wire:	Wire diameter [mm]					
	2,00	2,50	3,00	3,25	4,00	5,00
rings max till 200 kg, wrapped in paper and foil	x	x	x	x	x	x
bundled rods a'10kg, packed in foil bags	x	x	x	x	x	x
bare surface	x	x	x	x	x	x
coppered surface	x	x	x	x	x	x

x – standard

# Welding wire SPG4N

## Classification:

PN-88/M-69420

SPG4N

## Characteristics / application:

Steel wire coated with copper with nickel addition, applied as welding electrode for automatic shielded arc welding of higher strength steel. Used for butt welds and fillet welds for increased strength steels working in lower temperatures. Also used for surfacing by welding (pad welding) in railroad engineering.

## Typical chemical composition of the wire [%]:

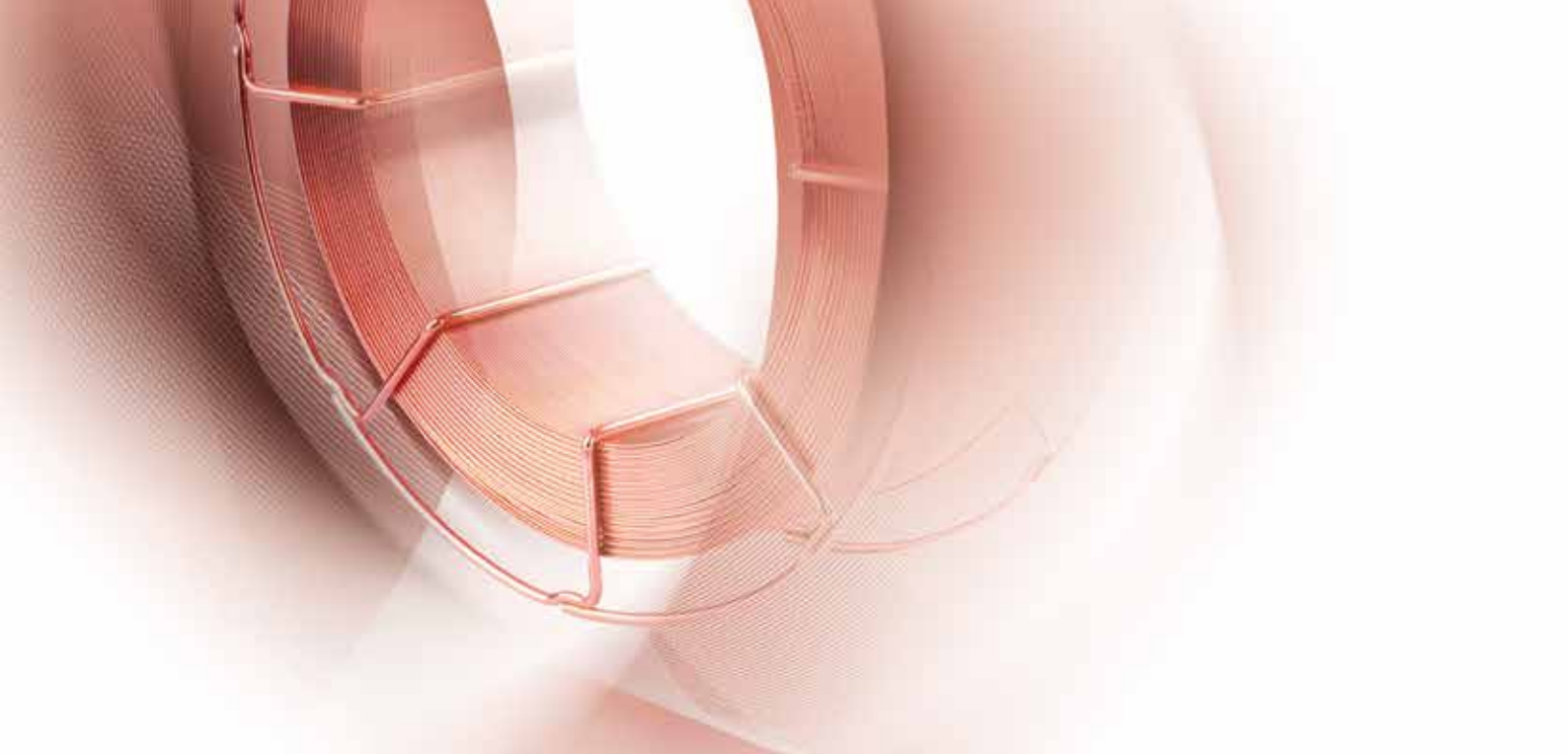
C	Si	Mn	Ni
max 0,10	0,10-0,30	1,60-2,00	0,60-1,00

## Dimensions range and packaging options:

Packaging of wire:	Wire diameter [mm]			
	3,00	3,25	4,00	5,00
rings max till 200kg, wrapped in paper and foil	x	x	x	x
balanced rings in the range of 30-50kg	option	option	option	option

x – standard





We have been specializing in manufacturing of wires and wire products for more than 135 years, following the trends and taking into account our customers' suggestions. We are the leader in galvanized wire production on the Polish market. Since 2009 we have been part of TŘINECKÉ ŽELEZÁRNY- MORAVIA STEEL Group. Our strong brand and product quality appreciated by customers is the result of our special attention paid to every detail of the production process. By investing in highly qualified engineering and technical staff, we ensure a high level of after-sale, technological and marketing service. The backbone of our manufacturing base is composed of: an efficient wire rod pickling line, a modern dip wire galvanization line, wire and wire rods recrystallization and spheroidization furnace, modern drawing base and many other types of equipment for wire processing. Our products are successfully placed on numerous foreign markets. We also implement different innovation and development projects - steel wires with TRIP effect. Our manufacturing processes are compliant with the wide range of applicable industry standards, as well as individual needs of our customer.

In our broad selection of products you will also find:

**bare hard wires, semi-hard wires and soft (black annealed) wires**  
**galvanized wires**  
**PVC coated wires**  
**barbed wires**  
**copper coated wires**  
**welding wires**  
**bookbinding wires**  
**nails – in one of the broadest assortment range in the world**  
**rods**  
**knotted wire netting**  
**heat treatment services of wires and wire rods**  
**surface treatment services of wires and wire rods**

All products meet the requirements of the highest quality standards which is confirmed by the ISO 9001:2008 certificate



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