

# ***CARBOFIL ELITE***

The gold evolution



*A new generation  
of solid GMAW wires for  
high performance welding*

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## THE GOLD EVOLUTION

A new generation  
of solid GMAW wires for  
high performance welding



Spooling to 5 -16 kg

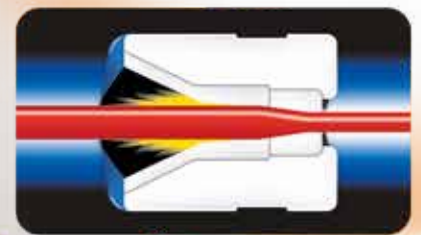


Wire Rod Ø 5.5 mm



**1<sup>st</sup> DRAWING**

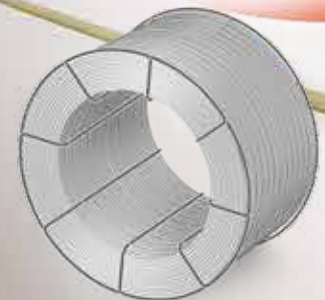
(up to 9 steps)  
to Ø 2 mm



## CARBOFIL ELITE

is the result of more than 20 years  
experience in solid wire production.  
Through a continuous improvement in the  
development of production processes, we have  
been able to meet the highest performance expectations  
of our customers in terms of weldability and reliability with high  
welding parameters for automatic and robotic applications.

**CARBOFIL ELITE** is produced in our manufacturing  
plants located in Europe with a dedicated production  
process from raw material to finished product.



## MHC+ for an outstanding level of **FEEDABILITY**:

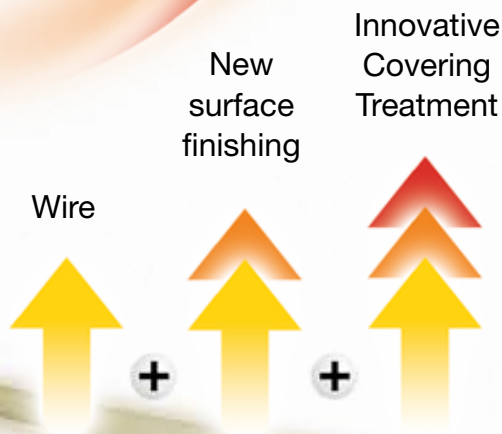


**Metallic Hybrid Coating technology**, already allowed us to have GOLD wire, giving confidence of excellent electrical contact and having a very clean surface free from residuals of the chemical process.

**With MHC+ we reached the highest level of feedability, completing the production process with:**

- optimized selection of wire rod chemistry,
- coating bath with dedicated additives,
- new surface finishing: improved adhesion of the coating to the wire given by the introduction of special dies in the drawing process,
- Innovative surface treatment as final step to refine and improve the feeding characteristics.

### CARBOFIL ELITE PROCESS



### **CONSTANCY: the reduction of VARIABILITY to increase absolute value**

In addition to all the aspect related to the product itself, a huge analysis on the production process has been carried out from our experts, in order to identify and improve the quality of the process. After having detected all the production parameters influencing the quality of the wire, a new logic with the aim of continuous improvement has been developed:

- **Quality Control Process**
- **Constant monitoring of the chemical composition of the baths**
- **Repeated welding tests**

In this way the quality of the products is **CONSTANT** and the **RELIABILITY** in welding increases.

## BLACK spool for a GOLDEN brightness



**CARBOFIL ELITE** is on black spools, to differentiate it from our standard GOLD wire and also to exalt the brilliant and shiny surface of this wire.



The NEW ELITE range is available in G3Si1 and G4Si1

Product	EN ISO Classification	AWS Classification	ABS	DB	DNV/GL	LR	TUV	CE
<b>CARBOFIL 1 ELITE</b>	G 42 3 C1 3Si1 G 42 4 M21 3Si1	SFA 5.18: ER 70S-6	X	X	X	X	X	X
<b>CARBOFIL 1A ELITE</b>	G 46 3 C1 4Si1 G 46 4 M21 4Si1	SFA 5.18: ER 70S-6	X	X	X	X	X	X
<b>CARBOFIL 1A LT ELITE</b>	G 46 4 C1 4Si1 G 46 5 M21 4Si1	SFA 5.18: ER 70S-6	-	X	-	-	X	X

Shielding Gas EN ISO 14175: M2 - C1.

### Products range ELITE

Description	Support	Weight	Diameter	Reference
<b>CARBOFIL 1 ELITE</b>	B300	16	1.00	<b>W000387117</b>
			1.20	<b>W000387118</b>
	BS300	16	1.00	<b>W000387119</b>
			1.20	<b>W000387120</b>
	DRUM	300	1.00	<b>W000387129</b>
			1.20	<b>W000387143</b>
	PRPA	600	1.00	<b>W000387121</b>
			1.20	<b>W000387122</b>
<b>CARBOFIL 1A ELITE</b>	B300	16	1.00	<b>W000387123</b>
			1.20	<b>W000387124</b>
	BS300	16	1.00	<b>W000387125</b>
			1.20	<b>W000387126</b>
	DRUM	300	1.00	<b>W000387144</b>
			1.20	<b>W000387145</b>
	PRPA	600	1.00	<b>W000387146</b>
			1.20	<b>W000387147</b>
<b>CARBOFIL 1A LT ELITE</b>	B300	16	1.00	<b>W000387127</b>
			1.20	<b>W000387128</b>

#### **CARBOFIL ELITE:**

- stable under high feeding speeds (1,2 > 18m/min, > 350 A)
- suitable also for pulsed arcs
- strikes easy
- shielding gas groups C1-M2
- typical base materials S235, S355, S460

Diameter 1.4 and 1.6 available in case of requests.



## CARBOFIL ELITE takes the actual wire technology to a new level of enhanced performances

Starting from our GOLD wire, thanks to R&D&I knowledge gained during these years of experience, we focused on the elements influencing the performance of GMAW wire: hence, we developed **CARBOFIL ELITE** to reach the highest requirements in **QUALITY** and **RELIABILITY**.

### The results are:

#### NEW SURFACE FINISHING

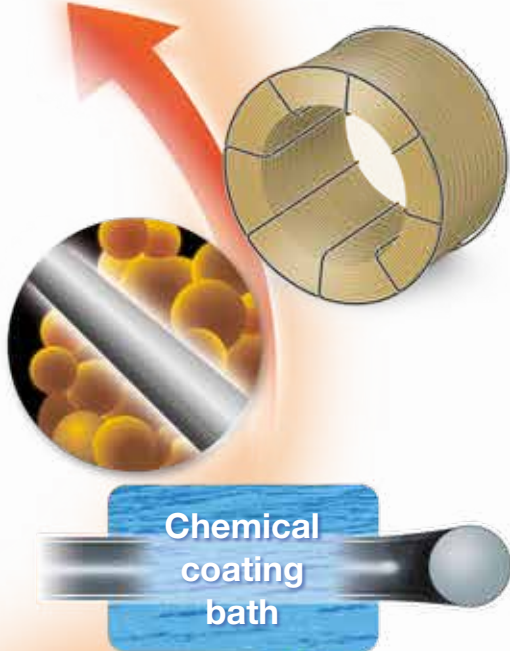
- ➔ Exceptional Arc Stability
- ➔ Low Presence of Spatters and Clean bead profile ensured by controlled thickness of the coppersing

#### INNOVATIVE COVERING TREATMENT

- ➔ Excellent Feedability also with High Welding Parameters and Long Liners
- ➔ Low Contact Tip Consumption
- ➔ High Oxidation Resistance thanks to the innovative Surface Treatment

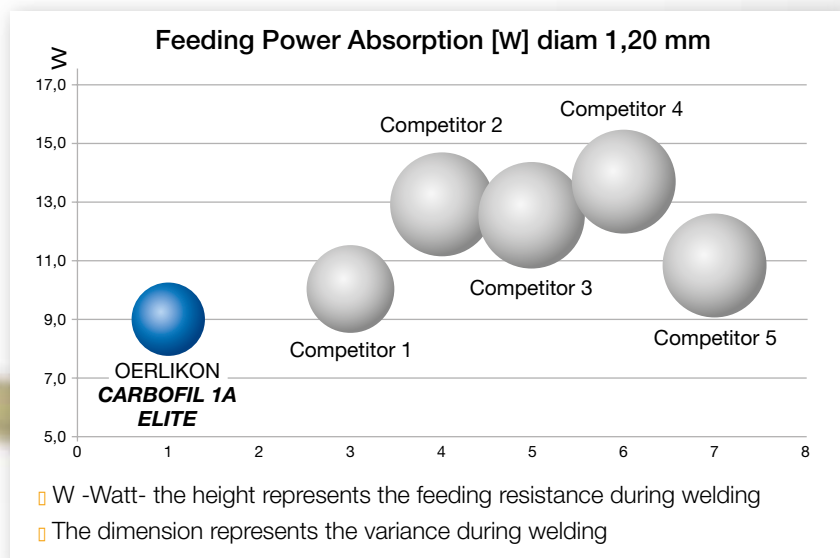
#### CONSTANCY

- ➔ Reliability and top quality, batch to batch
- ➔ Reduced Down Time and less Maintenance & Cleaning Operations
- ➔ Enhanced Productivity and Saving in terms of Costs



**2<sup>nd</sup> DRAWING**  
to Ø 0.8, 1.0  
or 1.2 mm

### CARBOFIL ELITE vs Competitors





[www.oerlikon-welding.com](http://www.oerlikon-welding.com)

#### **CUSTOMER ASSISTANCE POLICY**

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