

MIG MAG Wires C-Mn and low-alloy steels

CARBOFIL 1 GOLD is a special bronze-coated G3Si1/ER70S-6 type solid MAG welding wire, supplied both random and precision layer wound, depositing C-1.1%Mn weld metal, for welding a wide range of mild and C-Mn structural steels. Suitable for welding with CO₂ and Ar-based mixed shielding gases.

CARBOFIL 1 GOLD has a very good arc stability, excellent feeding properties, low spatter during welding, good start and stop characteristics with a low consumption of contact tips. Applications are the same as CARBOFIL 1, but especially suitable for welding in spray arc.

CARBOFIL 1 GOLD is available with a wide range of packaging formats from standard spools to high-quantity (max. 300 kgs drum) robotic application. The „GOLD” coating is produced with MHC technology, which guarantee a low content of elements associated with arc instability.

Classification	
EN ISO	14341-A: G 42 3 C G3Si1
EN ISO	14341-A: G 42 4 M G3Si1
AWS	A5.18: ER 70S-6

Approvals	Grade
ABS	3SA
ABS	3YSA
BV	SA3YM
DB	●
GL	3YS
LRS	3YS H15
RINA	3YS
TÜV	●

CE

Chemical analysis (Typical values in %)

	C	Mn	Si	P	S
Wire	0.08	1.5	0.9	≤ 0.025	≤ 0.025
All weld metal (*)	0.08	1.1	0.6	≤ 0.025	≤ 0.025
All weld metal (**)	0.09	1.0	0.5	≤ 0.025	0.025

(*) 82% Ar+18% CO₂, (**) 100% CO₂

All-weld metal Mechanical Properties

Heat Treatment	Yield Strength (MPa)	Tensile Strength (MPa)	Elongation A5 (%)	Impact Energy ISO - V (J)		
				+20 °C	-30 °C	-40 °C
As Welded (*)	≥420	500-640	≥24	>90	≥70	>47
As Welded (**)	≥420	500-640	≥22	>70	>47	

Gas test: (*) M21-Arcal 21, (**) C1-Arcal

Shielding Gas - EN ISO 14175 : M2 - C1

Materials

S(P)235 - S(P)355; GP240; GP280

Storage

Keep dry and avoid condensation

Current condition and welding position

DC+

