

# CARBOFIL 1

## TOP FEATURES

- Very consistent welding performance
- Optimal bead profile appearance and minimal spatters
- Available in all packagings from spools to drums

## TYPICAL APPLICATIONS

- General fabrication
- Heavy Fabrication
- Automotive
- Structural fabrication
- Robotics

## CLASSIFICATION

AWS A5.18	ER70S-6
EN ISO 14341-A	G 42 3 C1 3Si1
	G 42 4 M21 3Si1

## SHIELDING GASES (ACC. EN ISO 14175)

C1	Active gas 100% CO <sub>2</sub>
M14	Mixed gas Ar+ 0.5-5% CO <sub>2</sub> + >0,5-3% O <sub>2</sub>
M21	Mixed gas Ar+ >15-25% CO <sub>2</sub>

## APPROVALS

ABS	LR	DNV	TÜV	DB	CE
+	+	+	+	+	+

## CHEMICAL COMPOSITION (WEIGHT %), TYPICAL, WIRE

C	Mn	Si	P	S
0.08	1.4	0.9	≤0.025	≤0.025

## MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

	Shielding gas	Condition*	Yield strength (MPa)	Tensile strength (MPa)	Elongation (%)	Impact ISO-V (J)		
						+20 °C	-30 °C	-40 °C
Typical values	M21	AW	≥420	500-640	≥24	≥90	≥70	≥47
	C1	AW	≥420	500-640	≥22	≥70	≥47	

\* AW = As welded

## PACKAGING AND AVAILABLE SIZES

Wire diameter (mm)	Packaging	Weight (kg)
0.6	SPOOL (S200)	5.0
	SPOOL (S300)	15.0
0.8	SPOOL (S200)	5.0
	SPOOL (B300)	16.0
	SPOOL (BS300)	16.0
	DRUM	300.0
0.9	SPOOL (B300)	16.0
1.0	SPOOL (S200)	5.0
	SPOOL (S300)	15.0
	SPOOL (B300)	16.0
	SPOOL (BS300)	16.0
	DRUM	300.0, 500.0
1.2	SPOOL (S200)	5.0
	SPOOL (S300)	15.0
	SPOOL (B300)	16.0
	SPOOL (BS300)	16.0
	DRUM	300.0, 600.0
1.6	SPOOL (B300)	16.0
	DRUM	250.0

## TEST RESULTS

Test results for mechanical properties, deposit or electrode composition and diffusible hydrogen levels were obtained from a weld produced and tested according to prescribed standards, and should not be assumed to be the expected results in a particular application or weldment. Actual results will vary depending on many factors, including, but not limited to, weld procedure, plate chemistry and temperature, weldment design and fabrication methods. Users are cautioned to confirm by qualification testing, or other appropriate means, the suitability of any welding consumable and procedure before use in the intended application.

Safety Data Sheets (SDS) are available here:



Subject to Change – The information is accurate to the best of our knowledge at the time of printing.  
Please refer to [www.lincolnelectric.eu](http://www.lincolnelectric.eu) for any updated information.