



ECOspark®.

BECAUSE BÖHLER WELDING CARES.

ECOspark® combines the best of two worlds: Economy and ecology. ECOspark® was developed to provide exceptional efficiency for manual and automatic welding processes and to contribute to a healthy environment. Benefit from ultra-stable arcs, perfect wire feed, a broad parameter window, and low grinding and cleaning efforts. We're pleased to be able to help both you and your environment.

The ECOspark® portfolio thus represents the latest state of development for copper-free solid wires for joint welding of unalloyed and low-alloyed steels.



	EN ISO	Classification	AWS	Classification
ECOspark 420	14341-A	G 42 4 M21 3Si1 / G 42 4 C1 3Si1	A5.18	ER70S-6
ECOspark 460	14341-A	G 46 4 M21 4Si1 / G 46 4 C1 4Si1	A5.18	ER70S-6

Product properties	User benefits
Non-copper-plated wire surface	<ul style="list-style-type: none"> » No clogging of liners due to copper abrasion » Less system downtime for cleaning wire guides
Safe arc ignition	<ul style="list-style-type: none"> » No initial spattering » High reliability for short seams and tack welds
Stable arc with large parameter box	<ul style="list-style-type: none"> » Easy and quick parameter setting » Very low level of spattering » Less finishing
Consistent wire feeding properties	<ul style="list-style-type: none"> » Trouble-free welding » Enables productive welding at high welding currents
Very low formation of silica islands	<ul style="list-style-type: none"> » Less finishing such as grinding » Improved coating adhesion
Stable BS300 (S) spool	<ul style="list-style-type: none"> » Reliable unwinding » Easy to handle, no spool deformation

Typical chemical composition (wt%)			
	C	Si	Mn
ECOspark 420	0.08	0.90	1.45
ECOspark 460	0.10	1.00	1.70

Approvals	
ECOspark 420	TÜV (19669), DB (42.132.86), CE
ECOspark 460	TÜV (19670), DB (42.132.88), CE

Mechanical quality values, pure weld metal, typical values (min. value)						
	Shielding gas	Yield strength $R_{p0.2\%}$ MPa	Tensile strength R_m MPa	Elongation A_5 %	Notched bar impact energy ISO-V KV J	
	EN ISO 14175				-20 °C	-40 °C
ECOspark 420	M21 / CO ₂	440 (≥420)	560 (500–640)	28	–	80 (≥47)
ECOspark 460	M21 / CO ₂	480 (≥460)	620 (530–680)	26	–	80 (≥47)

ECOspark® is available in an environmentally friendly Böhler Welding ECOdrum that's easy to dispose of, in a robust BASEdrum, and on the unique green BS300 (S) wire basket spool – an extremely robust spool body without an adapter that enables really reliable handling.

For mechanised processes and robotic systems, the Böhler Welding ECOdrum is the best choice for top productivity. Today, the ECOdrum is one of the most advanced and reliable drum systems available. Böhler Welding drum systems come with a full range of accessories to enable efficient handling, installation, and wire feeding, such as the specially designed lifting beams or trolley, unwinding hoods, and „click & go“ guide sleeves for short distances. LD Glide and LD Feed wire guiding systems can deal with even the most challenging of wire feed tasks with distances of >40 m between the drum and wire feeder.

Overview of spool types						
	Spool	Weight	Diameter	ECOspark 420	ECOspark 460	
	BS300	16 kg	0.8 mm	62152	62558	
			0.9 mm	62153	62219	
	BS300	18 kg	1.0 mm	62154	63318	
			1.2 mm	62155	63351	
			1.6 mm	62156	63376	
	S300	16 kg	0.8 mm	62157	63387	
			0.9 mm	62160	63393	
			1.0 mm	62161	63395	
	S300	18 kg	1.2 mm	62162	63397	
			1.6 mm	62163	63398	
BASEdrum 250			250 kg	0.8 mm	62164	63399
				1.0 mm	62165	63400
	1.2 mm	62166		63401		
	1.6 mm	62167		63402		
ECOdrum 250	250 kg	0.8 mm	62168	63403		
		1.0 mm	62169	63404		
		1.2 mm	62170	63405		
		1.6 mm	62171	63406		
ECOdrum 400	400 kg	0.8 mm	62172	64191		
		1.0 mm	62173	64198		
		1.2 mm	62174	64212		
		1.6 mm	62175	64217		