

WAAM solid wire, low-alloyed, structural steel

Material Type	
S500	10NiMnSi5-5

**Characteristics**  
 WAAM solid wire designed for 3Dprinting of cryogenic fine grained steel structures.  
 The printed deposit is characterised by good low temperature properties.

Typical analysis of the solid wire (wt.-%)				
	C	Si	Mn	Ni
wt.-%	0.1	0.65	1.4	1,35

**Available products**  
 Diameter: 1,0 mm – 1,2 mm  
 Package: BS300 15 kg – ECOdrum 100 – ECOdrum 250 – S760 300  
 Other diameters and packages on request.

Typical mechanical properties of all-weld-metal EN ISO 15792-1				
Heat treatment	Yield strength R <sub>p0.2</sub>	Tensile strength R <sub>m</sub>	Elongation (L <sub>0</sub> =5d <sub>0</sub> )	Impact energy ISO-V KV J
	MPa	MPa	%	-50 °C
u	480	590	26	50
u untreated, shielding gas Ar + 18 % CO <sub>2</sub>				

Classification as welding consumable:

EN ISO 14341-A	AWS A5.28
G 50 5 M21 3Ni1	ER80S-G