

WAAM solid wire, low-alloyed, high strength structural steel

Material Type						
S800			10NiMnMoCr8-7-6			
Characteristics						
WAAM solid wire designed for 3Dprinting of high strength structures combined with high ductility and toughness.						
Typical analysis of the solid wire (wt.-%)						
	C	Si	Mn	Cr	Ni	Mo
wt.-%	0.09	0.40	1.70	0.35	2.00	0.60
Typical mechanical properties						
Heat treatment	Yield strength $R_{p0.2}$	Tensile strength R_m	Elongation ($L_0=5d_0$)	Hardness	Fracture toughness Kv [J]	
	MPa	MPa	%	HV 10	RT	-60 °C
u	825	960	20	330	150	80
pht	820	920	20	305		40
u	untreated, as printed, shielding gas Ar + 30 % He + 2,5 % CO ₂ , DC+					
pht	printed, shielding gas Ar + 30 % He + 2,5 % CO ₂ , DC+, 600 °C – 2 h					
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.						