

# Meltio Mild Steel ER70S

Material Group: Mild Steels

Mild Steel is the most common form of steel because of its relatively low price and good material properties. ER70S is magnetic, ductile and highly malleable alongside its unparalleled weldability and machinability.

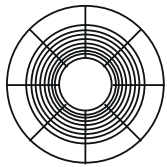
## Nomenclature Standards

AWS A 5.18 _____	ER70S - 6
EN ISO 14341 - A _____	G 42 4 M21 3Si1 G 42 2 C1 3Si1

## Chemical Composition

C	Mn	Si	S	P
0,07	1,45	0,85	0,02	0,01

## Spool Specs



<b>Diameter</b>	1 mm
<b>Weight</b>	15 kg
<b>Volume</b>	1923 cm <sup>3</sup>
<b>Density</b>	7.8 g/cm <sup>3</sup>
<b>Spool Type</b>	BS300

## Applications



Manufacturing  
finals parts



Tools and  
prototypes



Automotive  
industries

## Mechanical Properties

Results show Meltio's wire LMD 3D printed specimens to perform at the same level as conventional manufacturing methods, with low deviations and near isotropic properties between horizontal (XY) print orientation.

	Wrought Properties	Cast Properties	Meltio XY Properties	Meltio XZ Properties
<b>Tensile Strength (MPa)</b>	400 - 550	415 - 585	598 ± 5	525 ± 12
<b>Yield Strength (MPa)</b>	250	205	484 ± 8	402 ± 37
<b>Elongation (%)</b>	23	24	71 ± 1	15 ± 9

Shielding gas: Argon > 99.996% purity.

Data represents typical reference values from Wrought (ASTM A36) and Cast (ASTM A352) material classification compared to Meltio (M450) horizontal (XY) and vertical (XZ) specimens extracted from 3D printed walls and tensile tested according to UNE EN ISO 6892-1.