Product Data Sheet

G 'Gas-shielded metal-arc welding'

Purus 42 CF

Prepared by	Qualified by	Approved by	Reg no	Cancelling	Reg date	Page
Jose Abal Lopez	P-O Oskarsson	Jose Abal Lopez	EN007616	EN007611	2017-09-18	1 (2)

GENERAL

A non copper coated, G3Si1/ER70S-6 solid wire for GMAW of carbon-manganese steels. Purus 42 CF is particularly suited to be used in general construction, automotive components and mobile machinery industries. The wire may be welded with either a gas mixture or with pure CO2 as the shielding gas. Purus 42 CF is designed to give a clean weld bead with a minimum of silica islands, low fumes and extremely low spatter levels. The wire is suitable for robotic applications at high deposition rates.

Shielding Gas: M20, M21, C1 (EN ISO 14175) **Alloy Type:** Carbon-manganese steel (Mn/Si-alloyed)

CLASSIFICATIONS Weld Metal

EN ISO 14341-A	G 38 3 C1 3Si1
EN ISO 14341-A	G 42 4 M20 3Si1
EN ISO 14341-A	G 42 4 M21 3Si1

APPROVALS

CE	EN 13479
VdTÜV	19260

CLASSIFICATIONS Wire Electrode

EN ISO 14341-A	G 3Si1
SFA/AWS A5.18	ER70S-6

CHEMICAL COMPOSITION

Wire/Strip (%)

	Min	Max
C	0.06	0.14
Si	0.80	1.00
Mn	1.40	1.60
P		0.025
S		0.025

MECHANICAL PROPERTIES OF WELD METAL

All Weld Metal

	EN 80Ar 20CO2 As welded			EN CO2 As welded			AWS CO2 As welded	
Properties	**Min**	**Max**	**Typ**	**Min**	**Max**	**Typ**	**Min**	**Typ**
Rp0.2 (MPa)							400	420
ReL (MPa)	420		470	380		430		
Rm (MPa)	500	640	560	470	600	530	480	530
A4 (%)							22	30
A5 (%)	20		25	20		24		
Charpy V at 20°C (J)			130			110		
Charpy V at -30°C (J)			90	47		75	27	80
Charpy V at -40°C (J)	47		80			65		

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ECONOMICS & CURRENT DATA

Dimension (mm)	Current (A)		W	η	H		Feed		U	
Ø	Min	Max	Nom	Nom	Min	Max	Min	Max	Min	Max
1.0	80	300	16	96	1.0	5.5	2.7	15	18	32
1.2	120	380	18	97	1.3	8.0	2.5	15	18	35

W = Gas consumption (l / min)

η = Recovery, g weld metal / 100g wire (%)

H = Deposit rate (kg weld metal / hour arc time)

Feed = Feeding rate (m/min)

U = Arc voltage (V)