

PRODUCT DATA SHEET

Fluxshield®

Fluxshield® is an argon/carbon dioxide-based shielding gas specifically designed for high quality single- and multi-pass welding of mild, low alloy and stainless steels using the flux cored and metal cored wire processes. It can be used in all positions either manually or semi-automated, depending on the wire type. Fluxshield® exhibits excellent arc stability, generates good penetration profiles, a very smooth weld appearance with low spatter levels and promotes excellent slag detachability. Fluxshield® is also tolerant of poor fit-up and less than ideal joint cleanliness.

Afrox MSDS number: SG/MSDS 2

Hazards

- Asphyxiant in high concentrations
- Compressed – high pressure gas mixture in cylinders.

Classifications

Gas Components

Argon

Carbon dioxide

Material Description	Mass (kg)	Cylinder Capacity (l)	Pressure @ 20°C (Bar)	Valve Outlet Connection	Item Number
FLUXSHIELD® CYL 20,5 KG	20,5	50,0	200	5/8" BSPF right hand female	26-SE

Applications

- General plate fabrications
- Structural steel and bridgework
- Heavy engineering type fabrications
- Pressure vessels, piping and tank manufacture
- Offshore drilling rigs and shipbuilding
- Fabrications previously limited to SMAW using AWS-E7018 electrodes, with stringent mechanical strength requirements, i.e. for low temperature impact toughness, high yield and UTS requirements
- Ideal for HSLA, mild, structural and stainless steels.

Features	Benefits
Superior/excellent mechanical properties	High integrity welds exceeding the minimum requirements of AWS-5.18, AWS-A5.20, AWS-5.29 and ASME SFA5.20
Low weld metal hydrogen levels (<5 ml per 100 g of weld metal)	Low risk of hydrogen cracking
Excellent arc stability, very smooth arc	Excellent weldability and welder appeal with excellent weld bead appearance
Deep penetrating capability	Excellent fusion at the weld root
Ultra-high purity gas mixture	Consistent X-ray quality welds
Fast freezing slag	Allows welding in all positions
Low spatter and easy slag removal	Minimum post weld cleaning required
High weld metal deposition rates	High productivity and improved process economics over GMAW

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



Precautions in Use

- Use only approved pressure rated equipment
- Use only in well ventilated areas
- Open cylinder and MCP valve slowly
- Close cylinder and MCP valve when not in use
- Do not allow oil or grease on cylinder or valve
- Cylinders should be secured from falling over
- Refer to MSDS for more information.

Material Compatibility

Fluxshield® is non-corrosive and so any common metal is acceptable, provided the equipment is designed to withstand process pressure.

Welding Parameters for Mild Steel Flux Cored Wire E7 It-I*

	Welding Position	Wire Diameter (mm)	Current		Optimum Settings		Wire Feed Speed (m/min)	Deposited Metal (kg/h)
			Amps (A)	Volts (V)	Amps (A)	Volts (V)		
	Vertical-up	1,2	130 - 200	19 - 25	175 - 185	23 - 25	3,3 - 6,3	1,4 - 2,9
	Vertical-down	1,6	170 - 250	19 - 26	200 - 220	22 - 24	2,5 - 7,3	1,1 - 2,7
	Flat/ downhand welding	1,2	150 - 300	21 - 33	300	33	3,3 - 12,7	1,4 - 4,5
		1,6	200 - 400	22 - 34	350	34	3,7 - 10,8	1,6 - 6,8
	Horizontal fillet welding	1,2 - 1,6	150 - 400	21 - 34	350	34	3,7 - 10,8	1,6 - 6,8

*For the welding parameters for other gas shielded wire processes, see Afrox brochures. Ref. 995-282 and ref. 995-283.

Electrode stick out, contact tip-to-work distance 20 mm. DCEP (direct current electrode positive).
Gas flow rate 15-20 l/min.

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