

PRODUCT DATA SHEET

Alushield®

Alushield® is a gas mixture of argon and helium for GMAW and GTAW welding of aluminium and its alloys. It is a versatile, high specification gas suitable for welding over a range of thicknesses, giving consistently good penetration and bead shape. The mixture is chemically inert providing a stable, steady and controllable arc. Alushield® can also be used on automated welding processes and by allowing faster welding speeds with lower defect rates, can significantly reduce fabrication costs.

Helium content provides a higher arc energy to combat the high thermal conductivity of these alloys, increasing penetration and minimising the need for preheating.

Afrox MSDS number: SG/MSDS 7

Hazards

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

Classifications
Gas Components
Argon
Helium

Material Description	Mass (kg)	Cylinder Capacity (l)	Pressure @ 20°C (Bar)	Valve Outlet Connection	Item Number
ALUSHIELD® CYL 8,4 KG	8,4	50,0	200	5/8" BSPF right hand female	94-SE

Applications

- Ship and marine superstructures
- Pressure vessels
- Chemical and petrochemical plant
- Pipework.

Features	Benefits
Excellent arc stability	Little/no spatter
Low oxidation potential	Strong weld
Uses less wire	Reduces wire wastage of high value wires
Used in dip, pulsed and spray metal transfer modes	Easy to use
Fast, high arc energy	Low production costs
High heat input	Low defect levels
High purity argon/helium mixture	Reduced repair
	Reduced clean-up
	Can be used on machines and robots

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Precautions In Use

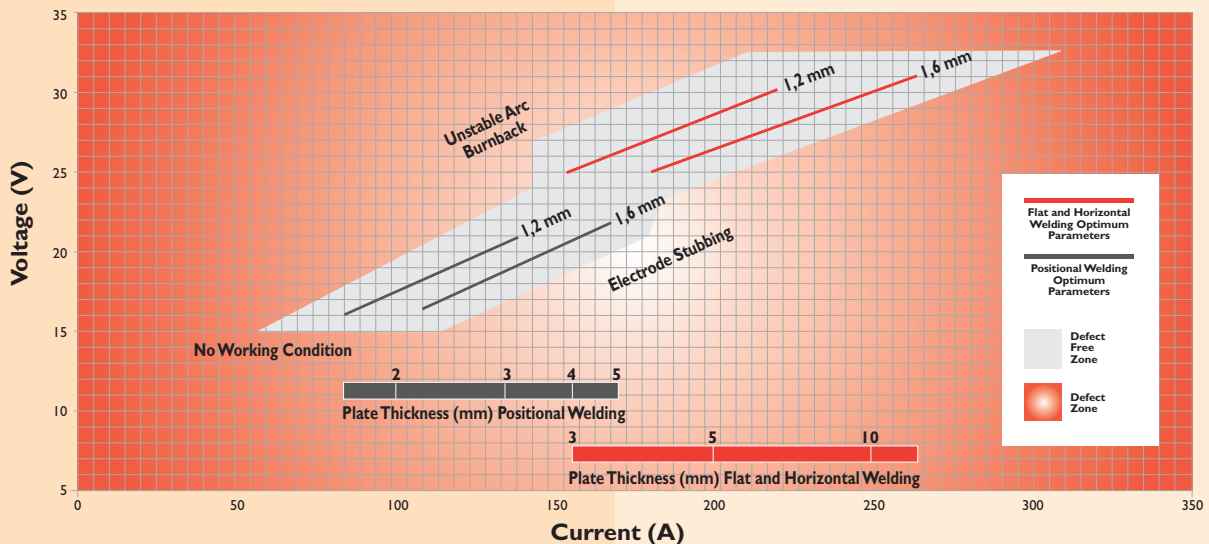
- Use only approved pressure rated equipment
- Use only in well ventilated areas
- Open cylinder valve slowly
- Close cylinder valve when not in use
- Do not allow oil or grease on cylinder or valve
- Cylinders should be secured from falling over
- Refer to MSDS for more information.

Material Compatibility

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

Current/Voltage Envelope

Operating limits for 1,2 mm and 1,6 mm diameter wires.



Electrode stick out, contact tip-to-work distance 19-25 mm for spray,
8-13 mm for dip. Gas flow rate 15-18 l/min

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