

ARCAL[™] 1

Argon (ISO14175-I1) Shielding Gas for High-Performance Arc Welding



Recommended Applications for ARCAL 1

- TIG welding of all materials
- MIG welding of aluminum and copper alloy
- Plasma and annular gas in plasma processes
- Arc striking gas in plasma cutting
- Purging and backing gas for GTAW applications of all materials
- Orbital GTAW and MIG brazing
- Plasma welding and YAG laser welding and brazing
- All welding positions in manual, automatic or robotic processes

Benefits and Features

- Recommended for GTAW applications, including carbon steels, stainless steels, aluminum, nickel and copper alloys.
- Recommended for GMAW welding of aluminum and copper alloys.
- Low impurity level minimizes surface oxidation, porosities and crack sensitivity.
- Produces high-integrity welds for materials highly sensitive to oxygen, nitrogen or moisture contaminations.
- Exceeds requirements of AWS A-5.32 specification for shielding gases, Classification SG-A.
- Dedicated cylinders and lot-batched to ensure purity and traceability.
- Exclusive SMARTOP[™] valve and SCANDINA[™] cap improve safety and ease-of-use.



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The SMARTOP™ Cylinder Valve Exclusively from Air Liquide

- Positive ON/OFF lever action prevents gas leaks common to traditional valves.
- ON/OFF lever opens and closes valve quickly in a single action and provides positive visualization of valve status.
- Built-in pressure gauge shows cylinder contents at a glance without having to open the valve.
- Accurate function is tested by Air Liquide during every cylinder refill.
- Includes a Residual Pressure Valve (RPV) to prevent atmospheric contamination of cylinder contents.
- SCANDINA™ cap permanently protects SMARTOP cylinder valve and allows easier, safer cylinder handling.



Gas tungsten arc welding on aluminum using ARCAL 1 high-purity argon prevents fusion defects, porosity and weld metal embrittlement.

Available Packaging

	49-Cylinder	16-Cylinder Pack*	Portable Liquid Cylinder	Bulk
Pressure (psi)	2640	2640	•	•
Volume (scf)	334	5344	•	•

- * ARCAL 1 is available in single cylinders and 16-cylinder packs when larger quantities are needed.
- Consult your Air Liquide representative.

Quality Assurance and Purity Guarantee

	Argon Industrial Grade	AWS A-5.32 Specification	ARCAL 1
Purity	99.997% (typical)	≥ 99.997%	≥ 99.997%
Analysis	–	–	Batch Analysis
Moisture	–	10.5 ppm max	10 ppm max
Oxygen	–	–	10 ppm max

Your Safety is our Concern

Before using ARCAL 1 or any other compressed gas, always read and understand the appropriate Material Safety Data Sheet (MSDS).



Founded in 1902, Air Liquide is the world leader in industrial and medical specialty gases and related services, providing innovative solutions for the manufacture of everyday products and for the protection of life.

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