

OXYGEN



MARKING

CAS-Number 7782-44-7
Characterization Oxygen, compressed, 2.2 (5.1)
Cylinder Marking Black



Physical Properties

Molecular weight: 31, 9988 kg/kmol
Density ratio to air: 1, 1052

ESSENTIAL PROPERTIES

Colourless, odorless, oxidizing gas, compressed, slightly heavier than air

Symbol of Risks:

Oxidizing



Gas, compressed



Major Hazards: Fire and High Pressure

UN Number: UN1072 (gas)
UN1973 (liquid refrigerated)

MATERIALS

CYLINDER SIZE	CYLINDER MATERIAL	PRESSURE	VALVE	PURITY
40 liter	Steel	150 bar	BS3 5/8" - Right hand Female connection	99.7%
50 liter		200 bar		

CYLINDER RACK

8 Cylinder Rack
12 Cylinder Rack
16 Cylinder Rack



CUTTING KIT



OXYGEN REGULATOR



APPLICATIONS

Welding/Cutting: With acetylene or LPG's, O_2 will boost the flame properties in flame torches and burners. It provides a highly effective jet for oxy-cutting carbon steels.

Environment: Enhances the waste water treatment and improves the process by decreasing the amount of incineration emissions.

Chemicals: Oxygen is used to improve the yield of a large number of petrochemical processes. It can be used pure in chemical oxidation reactions such as the production of ethylene oxide (EO), propylene oxide (PO), ethylene dichloride (EDC).

Pharmaceuticals: O_2 is used in chemical synthesis, for enrichment of air during fermentation and flame sealing of glass ampules.

Oil and Gas: Reduce viscosity and improve flow in oil and gas wells; to increase capacity of fluid catalytic cracking plants and facilitate use of heavier feedstock; and to reduce sulfur emissions in refineries.

Steel Manufacturing: To enrich air and increase combustion temperatures in blast and hearth furnaces; to raise steel temperatures and to replace coke as the combustible in steel making.

Pulp and Paper: Helps manufacturers meet environmental regulations in mill processes including delignification, bleaching, oxidative extraction, chemical recovery, white/black liquor oxidation and lime kiln enrichment.