

WELDSTAR

PROPYLENE

THE RIGHT

FUEL GAS



FUEL GAS COMPARISON

	PROPYLENE	ACETYLENE	METHYL-ACETYLENE BLENDS	PROPANE
COMBUSTION				
Flame Temp. in Oxygen °F	5295	5589	5301	4579
Flame Velocity in Oxygen, st/sec	15.0	22.7	15.4	12.2
Heating Value/Primary Flame	438	507	517	295
Secondary Flame	1962	963	1889	2268
TOTAL	2400	1470	2406	2563
PHYSICAL				
Liquid Density at 70° F, lbs./gal.	4.27	Dissolved Gas	4.71	4.14
Gas Specific Vol at 71° F, ft. 3/lb.	9.03	14.7	9.03	8.61
Vapor Pressure				
at 70° F, psig	137	Dissolved Gas	94	120
at 0° F, psig	34	18	18	28
SAFETY				
Explosive Limits in Air, %	2.0 - 11.1	2.4 - 80	3.4 - 10.8	2.3 - 9.5
Shock Sensitivity	Stable	Unstable	Relatively Stable	Stable
Tendency to Backfire	Slight	Extreme	Moderate	Slight
Toxicity	Low	Low	Low	Low
Maximum Allowable Use Pressure, psig	Cylinder	15	Cylinder	Cylinder
Reaction with Common Materials	Few Restrictions	Reacts with copper & silver alloys	Reacts with copper & silver alloys	Few Restrictions

GOOD

REFINERY GRADE

PROPYLENE 50-70%
PROPANE 30-50%
ETHANE

BETTER

CHEMICAL GRADE

PROPYLENE 90-95%
PROPANE 5-10%
ETHANE

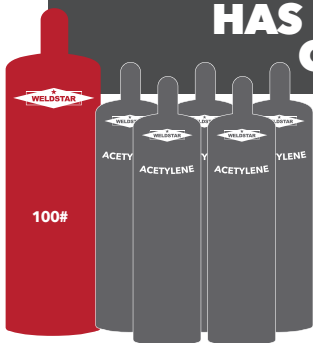
BEST

POLYMER GRADE

PROPYLENE (MIN.) 99.5%
PROPANE (LESS THAN) .5%
ETHANE

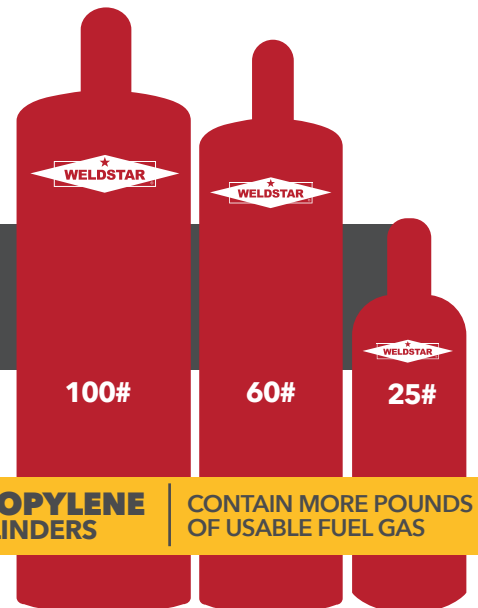


EACH CYLINDER OF PROPYLENE HAS MORE PRODUCT THAN A CYLINDER OF ACETYLENE.



A SINGLE 100LB PROPYLENE CYLINDER IS EQUIVALENT TO FIVE, ACETYLENE CYLINDERS.

This can significantly decrease both product and delivery costs as well as increase productivity because less time is spent changing out cylinders.



PROPYLENE CYLINDERS

CONTAIN MORE POUNDS OF USABLE FUEL GAS

PROPYLENE

THE PREFERRED FUEL GAS



WHY FABRICATORS, CONTRACTORS AND PLUMBERS ARE CHANGING TO PROPYLENE?

SAFER	REDUCED CHANCE OF FLASHBACKS, MORE STABLE
40% REDUCTION	IN COST OVER ACETYLENE
50% REDUCTION	IN GAS PRESSURE VS. PROPANE (LESS GAS)
75% LESS	CYLINDER CHANGE OUTS (1 - 63LB VS. 300 CU FT / ACETYLENE)
QUALITY CUTS	LESS GRINDING, BETTER JOINT FIT-UP
HIGHER VAPOR PRESSURE	IN COLDER TEMPERATURE
FASTER CUTTING SPEEDS	PRODUCTIVITY IMPROVEMENT
LONGER TIP LIFE	LESS CHANGE OUT TIME
HIGHER BTU RATES	UNIFORM HEAT TRANSFER FOR HEATING AND BRAZING

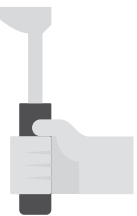
PROPYLENE, LIKE ACETYLENE, IS A SINGLE COMPONENT GAS

IT IS THE SAME FROM TOP TO BOTTOM OF THE CYLINDERS FROM DELIVERY TO DELIVERY

IT DOES NOT STRATIFY OR DISTILL

NO ADDITIVES TO FOUL UP HOSES AND TORCHES

IT IS CONSISTENT



METHYL ACETYLENE BLENDS

MIXTURES OF FOUR MAJOR AND MINOR COMPONENTS

PRODUCE MIXED, FUZZY FLAMES

HARD TO ADJUST

MIXTURE CHANGES AS CYLINDER EMPTIES



EQUIPMENT

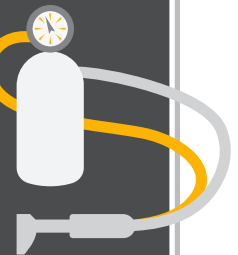
USE EXISTING REGULATOR & TORCHES

REPLACE CUTTING TIPS

USE T-GRADE HOSE

You only need to switch out the gas and cutting tips to begin using propylene for your cutting project as long as you're already using a T-grade hose.

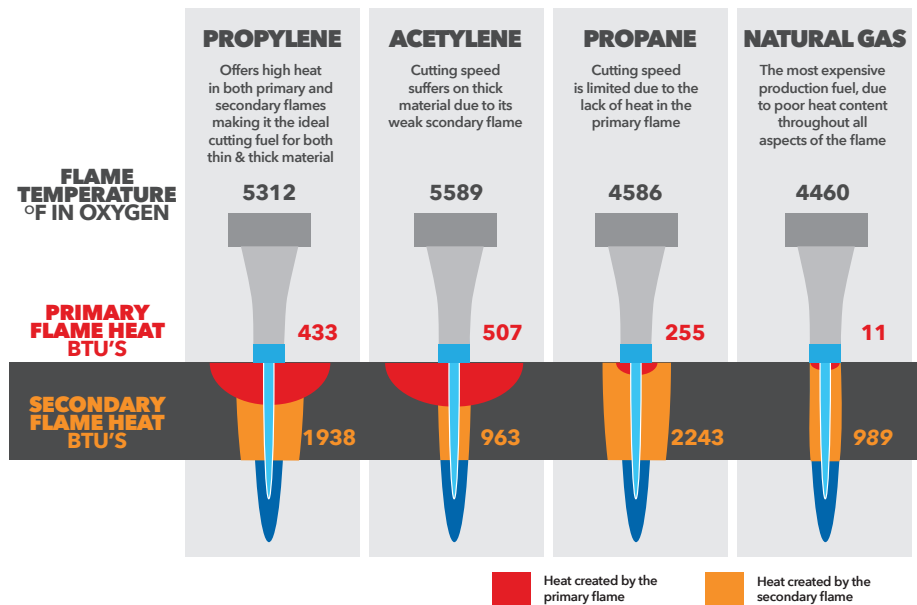
Any fuel gas other than acetylene requires the use of a **T-grade hose**.



LONGER LASTING CUTTING TIPS

Cutting tip consumables last longer when using propylene. This is due to the increased tip-to-work distance: tip is not exposed to such high temperatures or effects from the work surface.

Propylene cutting does not produce soot due to the chemistry of the gas that makes it a cleaner burning fuel.



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