



Lambda coefficient and mixture characteristics

$$\lambda = \frac{\text{Real weight to air consumed per Kg of gasolina}}{\text{Theoretical weight of air that should be consumed per Kg of gasoline}} = \frac{X}{14,7}$$

Cases according to actual mixture (x)

X	Air	Mixture	λ
< 14,7	Defect	Rich	< 1
= 14,7	Equilibrium	Stoichiometric	= 1
> 14,7	Excess	Poor	> 1

Mixture	%	Consequences
Rich	< 0,75 0,75 ÷ 0,85 0,85 ÷ 0,95	The engine is flooded and the mixture does not light so the engine stops working Mixture too rich for instantaneous use, provide power increase Maximum power at continuous rate (slope, passing, etc.)
Normal	0,95 ÷ 1,05	Normal driving (Cruise rate)
Poor	1,05 ÷ 1,15 1,15 ÷ 1,30 > 1,30	Minimum consumption with slight loss of power Considerable loss of power with an increase in consumption but lower output The engine does not work, the flame is not being propagated