

PRESSURE RANGES OF QUALITY OF VACUUM IN DIFFERENT UNITS

Vacuum quality	Torr	Pa	Atmosphere
Earth sea level	760	1.013×10^5	1
100 km altitude	2×10^{-4}	3×10^{-2}	3×10^{-7}
Outer space	1×10^{-6} to $< 3 \times 10^{-17}$	1×10^{-4} to $< 3 \times 10^{-15}$	1×10^{-9} to 4×10^{-20}
Medium vacuum	25 to 1×10^{-3}	3×10^3 to 1×10^{-1}	1 to 0.03
High vacuum	1×10^{-3} to 1×10^{-9}	1×10^{-1} to 1×10^{-7}	1×10^{-6} to 1×10^{-12}
Ultra high vacuum	1×10^{-9} to 1×10^{-12}	1×10^{-7} to 1×10^{-10}	1×10^{-12} to 1×10^{-15}
Outside ISS	1×10^{-7}	1×10^{-5}	1×10^{-10}

Relationship between altitude and orbital lifetime

$m/A =$
mass/area

