

Moon Europa

Mass: $4.8 \cdot 10^{22}$ kg

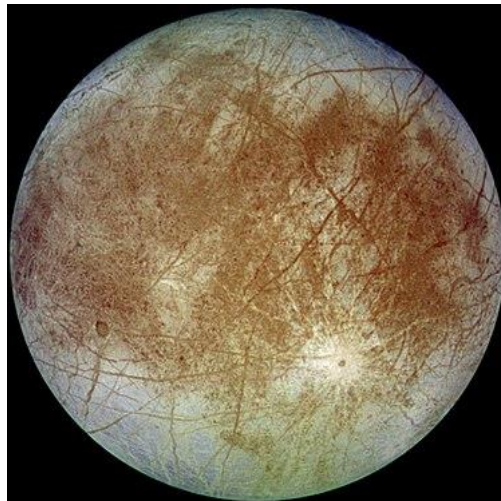
Orbital period: 3.6 days

Distance: 671,100 km - here: 67.1 cm

Diameter: 3.122 km - here: 3.1 mm

Sponsored by: Family Busch, Müllrose

Moon Europa



Picture (Europa):

Author: NASA/JPL/DLR

[https://de.wikipedia.org/wiki/Europa_\(Mond\)#/media/Datei:Europa-moon.jpg](https://de.wikipedia.org/wiki/Europa_(Mond)#/media/Datei:Europa-moon.jpg)

The moon was named after Europa, one of the lovers of Zeus (Roman: Jupiter) in Greek mythology. It is the second innermost and smallest Galilean moon of the planet Jupiter. Europa has a bound self-rotation, so that she always turns only one side to Jupiter. Its orbit is nearly circular and is in a 1:2 resonance with Ganymede and in a 2:1 resonance with Io. It has a high reflectivity (albedo) and is therefore one of the brightest moons. The crust is constantly in motion due to tidal forces. Europa is considered a prime example of an icy moon. However, in the centre there is a liquid core of iron or iron sulphide. Above this, there is a mantle of silicate rocks, framed by an ocean of salt water about 100 km deep. The structure is closed by a kilometre-thick crust of water ice. It has an extremely thin atmosphere of oxygen. Europa is considered a possible candidate for extra-terrestrial life.

Important data of Europa:

Mean orbit radius:	671,100 km
Periapsis – Apoapsis:	665,100 km – 677,100 km
Eccentricity:	0.009
Inclination (ecliptic):	1.79°
Orbital period (sidereal):	3.55 d
Average orbital speed:	13.74 km/s
Mean diameter:	3121.6 km
Mass:	about 0,008 Earth masses ($4.80 \cdot 10^{22}$ kg)
Mean density:	3.01 g/cm ³
Synodic rotation period:	3.55 days
Inclination (Jupiter):	0°
Surface gravity:	1.32 m/s ²
Escape velocity:	2.040 m/s
Surface temperature:	-223 until -148 °C (50 until 125 K)

Link: [https://en.wikipedia.org/wiki/Europa_\(moon\)](https://en.wikipedia.org/wiki/Europa_(moon))