

WOOD ELVES: LET'S SPRUCE THINGS UP

We all know the Tolkien's Lord of the Rings to be the greatest books/movies of all time. Period. In the books and movies, elves are granted this magical ability to be incredibly light. They are so light that when the fellowship makes their way to the mines of Moria, Legolas is able to walk on top of snow, "leaving little imprints", whereas every other member is knee deep in snow. How heavy would Legolas, and his elven kin, need to be in order to achieve this? What would Legolas' density be at this weight?

Things to assume:

- Surface area of Legolas' foot is 100 cm^2
- Legolas sinks into snow no more than 3 cm
- Sheer strength of snow is 3100 Pa
- Legolas' volume is 95 liters
- The average density of a human is 1062 kg/m^3

