

HOW TO MAKE A 2-PASS - 96 FACES SPHERICAL COVERING

- Use a PCV tube (lavabo basin drain) Length = 6cm, Diameter = 32mm.
- Two Champagne corks, one for each side of the tube.
- 24 'round head' pins.
- 2 meters of 2 mm cordage 24 time 8cm that is 192cm (at ship chandlers).
- A wooden ball or a glass marble. Diameter = 30mm.

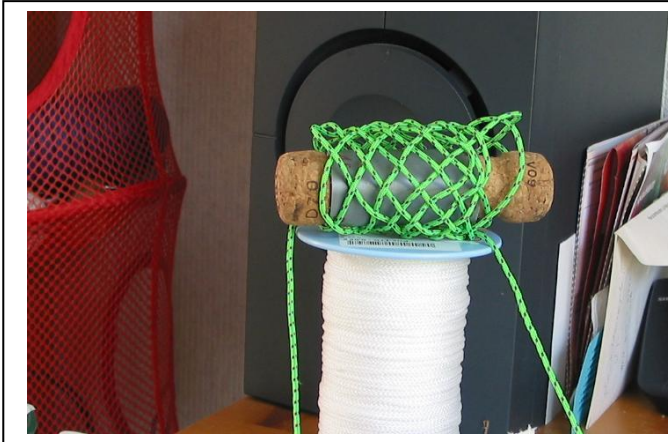
- Position the pins on each cork, as in the table above. The red pins rows are vertically aligned with each other. Same thing for the green pins rows. For a given row pins are put every 90° of the circle.
- The bottom (green pins) cork is rotated 45° compared to the top cork with the red pins.

[illegible]

1. Start to lay the cordage from position **A1** then go to **C5**, **A2**, **C6**, and so on as in the coding table show above.
2. « O » means **OVER**, lay the Working End (Wend) over the already laid thread you encounter. « U » means **UNDER**, lay the WEnd under the already laid thread. Do like that till the end that is going from **C4** to **A1**.

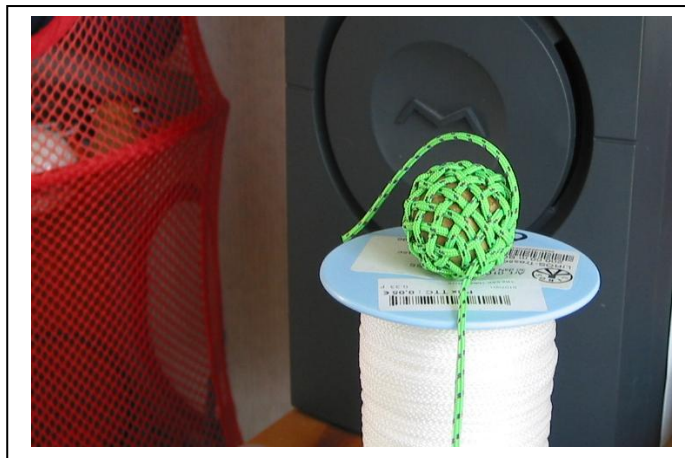


3. **BE CAREFUL:** during this laying phase do not induce a « *twist* » into the cordage or the setting will be rather difficult and the final result will be wanting in quality. A regularly made laying will make things easier; this is one of the most **important** points to observe to get a satisfying final result.
4. The next difficulty is in making a very regular and equally tensioned setting. For this tensioning do not hesitate to make several 'rounds' of progressive tensioning, in particular for your first attempts.

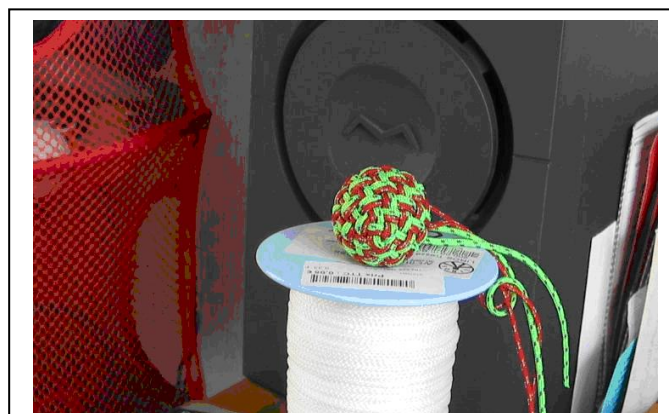
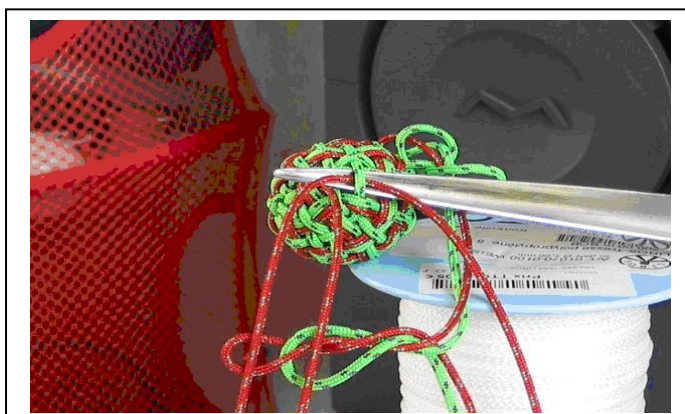


5. **Take care to NOT tighten** immediately, just take off the slack. After taking the pins, then the two corks off, make this taking off of the slack **directly** on the PCV tube or after transferring the work on a longer cylinder, it is as you want to do it.
6. I show under a setting done in 4 stages without having first taken the slack off on the tube, but from personal experience I can confirm that a first taking off of the slack directly on the tube is clearly a better option.
7. When still a beginner with such knots may be it is best to settle for a setting in 6 or 8 stages. During each of those stages balance the way the cordage is laid on the ball (here a wooden ball and a 2mm cordage as can be found at any ship chandler).
8. It is possible in those first stages to tension across a distance of several crossings in the same 'pull' but doing this is not recommended in the last stages. Take care that the cordage **does not turn and twist** (torque)!





9. As already said before the knot must not be fully tightened (but not left overly opened either, all is a question of dosage and experience). The point to keep in mind is that in this fourth stage shown above the knot is not locked.
10. The second PASS must be easy to put in. Here I used a second colour but usually this second PASS is made with the same cordage. With a little experience the spherical covering can be tightened at the end of the second PASS.
11. Otherwise the setting phase is made crossing after crossing to get the result shown under. Doing that knot should take between 1h30 - 2h for the quickest and more reasonably count about 4h to 6h.



Happy knot tying and courage