What is claimed is:

1. An article comprising:

a first sheet comprising a first sheet bonding surface; and

a coating layer comprising a first coating layer bonding surface and a second coating layer bonding surface, the coating layer comprising a polymerized hydrogenated amorphous hydrocarbon compound,

wherein the coating layer is formed by depositing a precursor compound having a hydrogen and carbon content of greater than 90 weight percent;

wherein the coating layer comprises

a refractive index above 1.8; and

wherein the coating layer has an average thickness of less than 5 nm.

2. The article of claim 1, further comprising a second sheet comprising a second sheet bonding surface, wherein the second coating layer bonding surface is bonded with the second sheet bonding surface.

3. The article of any of the preceding claims, wherein the first coating layer bonding surface is bonded with the first sheet bonding surface with a bond energy of equal to or less than 600 mJ/m^2 after holding the article in a furnace at a temperature of 600 °C for 10 minutes in a nitrogen atmosphere.

4. The article of any of the preceding claims, the first coating layer bonding surface being bonded with the first sheet bonding surface with a bond energy of equal to or less than 500 mJ/m^2 after holding the article in a furnace at a temperature of 500 °C for 10 minutes in a nitrogen atmosphere.

5. The article of any of the preceding claims, the change in percent bubble area of the coating layer being less than 10 percent according to Outgassing Test #1 after holding the article in a furnace at a temperature of 500 °C for 10 minutes in a nitrogen atmosphere.

6. The article of any of the preceding claims, wherein the coating layer further comprises at least one of:

an optical band gap of less than 2 eV; and

an intensity ratio (D/G ratio) of a peak (D band) appearing in a range of 1350 to 1400 cm^{-1} to a peak (G band) appearing in a range of 1530 to 1600 cm^{-1} of a Raman spectrum of the coating layer is in a range of 0.5 to 0.6.

7. The article of any of the preceding claims, wherein the coating layer has a thickness of from 3.5 nm to 4.5 nm.

8. A method of making an article comprising:

forming a coating layer, onto a first sheet bonding surface of a first sheet, by vapor depositing a precursor compound having a hydrogen and carbon content of greater than 90 weight percent; and

the coating layer comprising a polymerized hydrogenated amorphous hydrocarbon compound and a first coating layer bonding surface and a second coating layer bonding surface,

wherein the coating layer has an average thickness of less than 5 nm.

9. The method of claim 8, the coating layer is formed by depositing a hydrocarbon compound, the hydrocarbon compound having a formula of C_nH_y, wherein n is 1 to 6 and y is 2 to 14.

10. The method of claim 8 or claim 9, further comprising bonding the second coating layer bonding surface with a second sheet bonding surface of a second sheet.

11. The method of any one of claims 8-10, wherein the hydrocarbon compound is selected from the group consisting of an alkane, an alkene, and an alkyne.

12. The method of claim 11, wherein the hydrocarbon is an alkane selected from the group consisting of methane, ethane, propane, butane, pentane and hexane.

13. The method of claim 11, wherein the hydrocarbon is an alkene selected from the group consisting of ethylene, propylene, butylene, pentene and hexene.

14. The method of claim 11, wherein the hydrocarbon is an alkyne selected from the group consisting of ethyne, propyne, butyne, pentyne and hexyne.

15. The method of any one of claims 8-14, further comprising increasing the surface energy of the second coating layer bonding surface before the second sheet bonding surface is bonded to the second coating layer bonding surface, wherein the surface energy is increased

by exposing the second coating layer bonding surface to oxygen, nitrogen, or a combination thereof.

16. The method of any of claims 8-15, wherein the vapor deposition is low-pressure plasma chemical vapor deposition or atmospheric pressure plasma chemical vapor deposition.

17. The method of any of claims 8-16, the second coating layer bonding surface having an as-deposited surface energy greater than 50 mJ/m^2.

18. The method of any of claims 8-17, wherein the coating layer has a thickness of from 3.5 nm to 4.5 nm.