

glass-like carbon

An agranular non-graphitizable carbon with a very high isotropy of its structural and physical properties and with a very low permeability for liquids and gases. The original surfaces and the fracture surfaces have a pseudo-glassy appearance.

Note:

The often used synonyms 'glassy carbon' and 'vitreous carbon' have been introduced as trademarks and should not be used as terms. From a scientific viewpoint, all synonymous terms suggest a similiarity with the structure of silicate glasses which does not exist in glass-like carbon, except for the pseudo-glassy appearance of the surface. Glass-like carbon cannot be described as amorphous carbon because it consists of two-dimensional structural elements and does not exhibit 'dangling' bonds.

See: agranular carbon

Source:

PAC, 1995, 67, 473 (*Recommended terminology for the description of carbon as a solid (IUPAC Recommendations 1995)*) on page 490