doi:10.1351/goldbook.N04233

nuclear graphite

A polygranular graphite material for use in nuclear reactor cores consisting of graphitic carbon of very high chemical purity. High purity is needed to avoid absorption of low-energy neutrons and the production of undesirable radioactive species.
Note:
Apart from the absence of neutron-absorbing impurities, modern reactor graphites are also characterized by a high degree of graphitization and no preferred bulk orientation. Such properties increase the dimensional stability of the nuclear graphite at high temperatures and in a high flux of neutrons. The term nuclear graphite is often, but incorrectly, used for any graphite material in a nuclear reactor, even if it serves only for structural purposes.

Source:
PAC, 1995, *67*, 473 *(Recommended terminology for the description of carbon as a solid (IUPAC Recommendations 1995))* on page 498

 Copyright © 2014 IUPAC