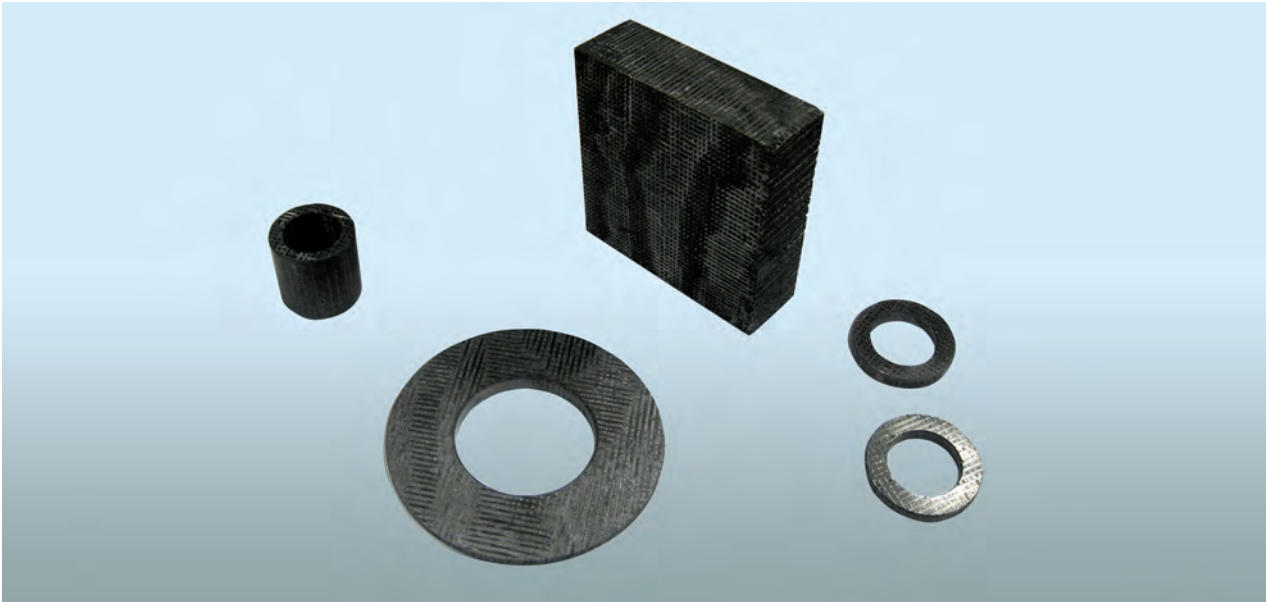


BRAKE DISKS MADE OF CARBON-CARBON COMPOSITE MATERIALS (CCCM)



Brake disks made of carbon-carbon composite materials

Areas of Application

The product is to be used in mechanical engineering, aircraft industry, highway and railway transport

Specification

Low specific density; the discs ensure safe operation at a temperature over 1000 °C.

Density g/cm ³	1.5–1.85
Mechanical strength, MPa	100–400
Friction coefficient	0.25–1.5
Low open porosity, %	From 3–4 to 8–12

Advantages

The brake discs are made on the basis of PAN (polyacrylonitrile) and rayon carbon fibers using the original thermogradient gas-phase method for CCCM manufacture. Methods for welding the disc frictional materials on metal elements have been developed. The friction coefficient is stable or increases as temperature grows. The brake discs can withstand considerable thermal and mechanical shocks; are corrosion-resistant

Stage of Development.
Suggestions for Commercialization

IRL7, TRL5
Manufactured and supplied, upon request

IPR Protection

IPR1

Contact Information

Igor V. Gurin, National Science Center "Kharkov Institute of Physics and Technology";
+38 067 712 16 74, +38 057 349 10 61, e-mail: Igor@kipt.kharkov.ua