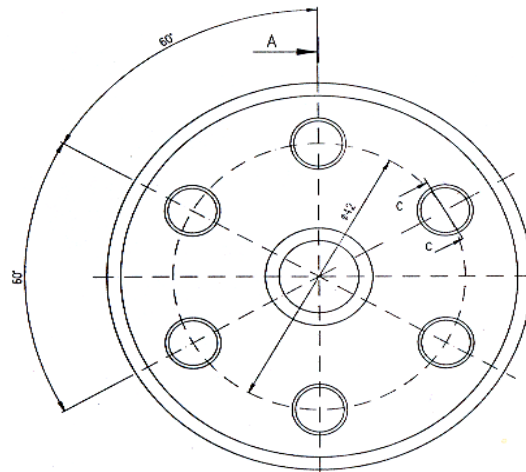
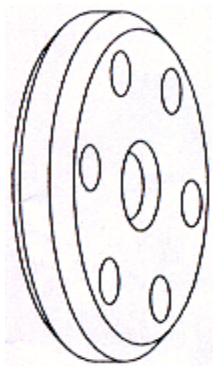


## CARBON MATERIAL WITH HIGH THERMO-MECHANICAL SHOCK RESISTANCE

### Description:

Composite, poly-granular carbon material, thermally treated at 950°C and densified by pitch impregnation. The material is resistant to thermo-mechanical shock.



### Technical characteristics:

- apparent density, ( $\text{g}/\text{m}^3$ ): 1.50 – 1.65;
- Rockwell hardness, (HRB 10/60): 95 – 115;
- flexural strength, ( $\text{MN}/\text{m}^2$ ): > 21;
- exhaust gas temperature, ( $^{\circ}\text{C}$ ): ~2700;
- gas velocity through nozzle, (s): 330;
- gas outflow time through nozzle, (s): 4 – 6;
- gas composition:  $\text{CO}_2$ ,  $\text{CO}$ ,  $\text{H}_2\text{O}$ ,  $\text{N}_2$ ,  $\text{NO}$ ,  $\text{NO}_2$ ,  $\text{H}_2$ ;
- gas pressure through nozzle, (bar): 150.

### Applications:

- rocket nozzle.

### Delivery conditions:

- half-finished product;
- finished product.