

FRICITION MATERIAL JP402T

Material description:

The asbestos-free friction material is made on the basis of synthetic resins, synthetic rubber, metal and non-metallic fillers, mineral fibers, friction coefficient corrections and stabilizers. The use of the KEVLAR® fiber pulp in the lining guarantees the maintenance of high thermal and chemical resistance and resistance to wear of the lining and the friction partner (coupling disc).

This material is made by hot pressing technique. Upon completion of the process of hot pressing, friction elements are subject to a special thermal treatment that stabilizes friction and physical and chemical properties.

Material structure: homogeneous, black, smooth, with visible solid fragments of steel wool and silicone glass fiber.

Scope of application:

Solid and split friction rings, friction gears.

Friction pads: eccentric presses, forging presses, trimmers, etc.

Brake pads: industrial machines.

Brake bands (friction linings reinforced with a metal net) for machines, excavators, cranes, etc.

Shoe brakes (friction linings reinforced with a metal net): overhead cranes, mining machines.

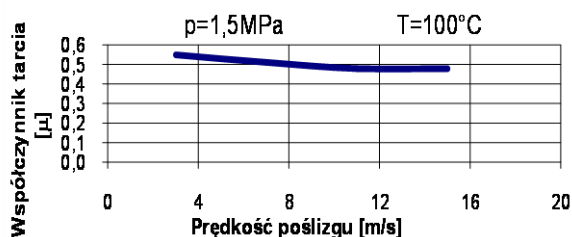
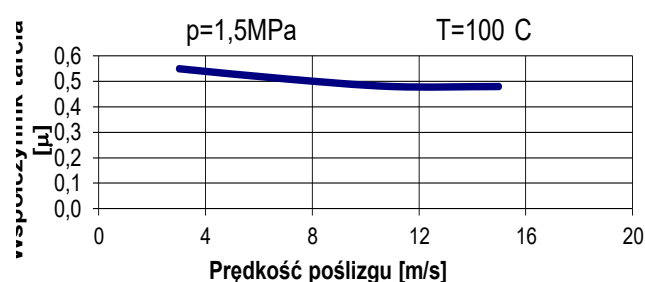
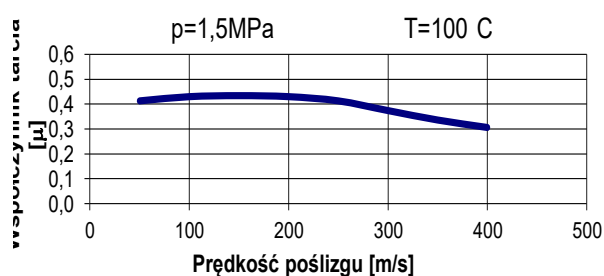
Technical specification:

Physical and mechanical properties	Testing standard	Testing parameters	Unit	Typical value
Density	PN-92/C-82055/10	20 °C	g/cm ³	2,3
Hardness H	PN-93/C-89030/01	20 °C	MPa	108,0
Un-notched impact strength	PN-68/C-89028	20 °C	kJ/m ²	7,6

Recommended working conditions		Chemical resistance	
Unit pressure	0,5 – 3 MPa	to brake fluid	good
Slip speed	up to 40 m/s	to diesel oil	good
Working temperature - momentary	450 °C	to petrol	good
Working temperature - long-term	350 °C	to solid grease	good
Antifriction material	Zl 250	to gear oil	good

This material is not designed to work in oil.

Frictional properties $\mu=f(T,p,V)$ under laboratory conditions



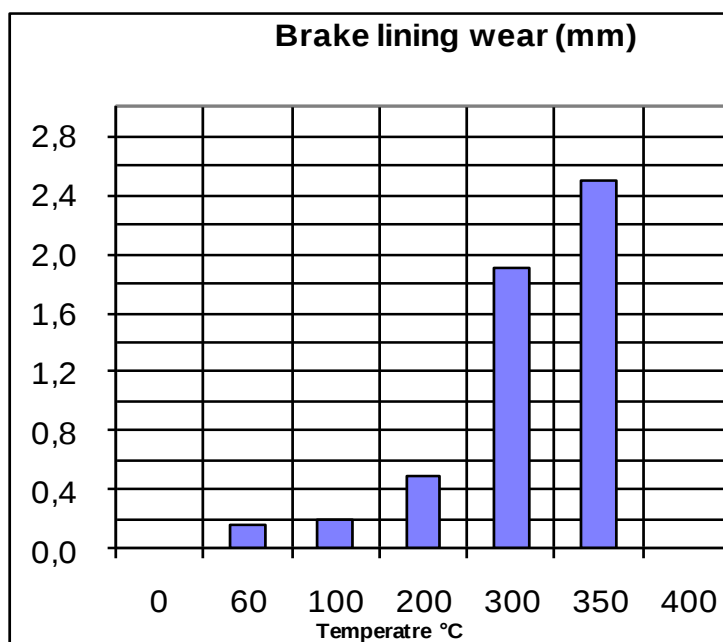
Frictional properties $\mu=f(T,p,V)$ were determined on a testing stand in accordance with standard testing procedures

WEAR TEST

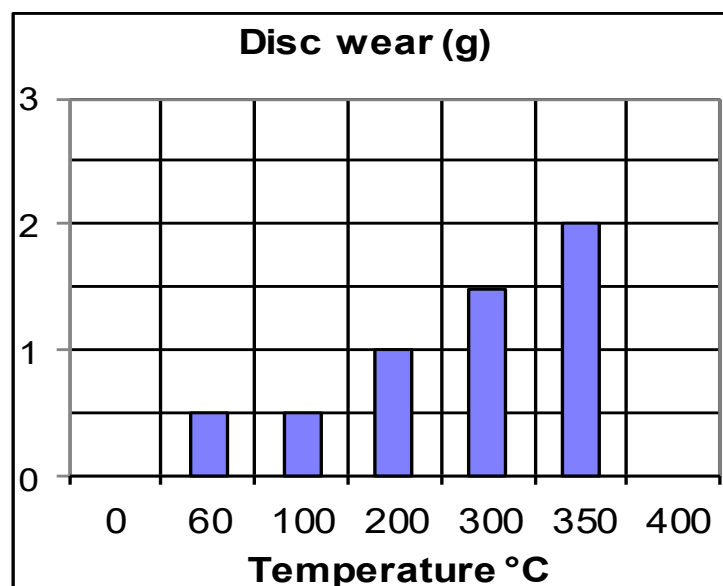
friction material: JP402T

Testing parameters on a testing stand:

After 500 times of braking for the temperatures of 60, 100, 200, 300, 350 °C at a constant pressure of $p = 2 \text{ MPa}$	
Actual moment of inertia: 16 kgm^2	Initial rotational speed: 1075 min^{-1}
Brake caliper: Bendix III - Polonez	Diameter of wheel cylinder: $\varnothing 48 \text{ mm}$
Brake disc: $\varnothing 227 \times 10 \text{ mm}$	Average friction radius: 0.09 m .



Lining wear	
°C	mm
60	0,15
100	0,2
200	0,5
300	1,9
350	2,5
Σ	5,25



Disc wear	
°C	g
60	0,5
100	0,5
200	1
300	1,5
350	2
Σ	5,5