Frenos Sauleda s.a.
science friction

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ID Material	10
Responsable	R.Antich
Revision	0
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FGR

FGR is developed for industrial applications, it is a rigid and molded green friction material. The most known characteristics of this material it's hardness and mechanical strength. The material comprises mainly of phenolic resins with NBR bonding system, short fibres, friction modifiers, metal particles and fillers. FGR is fully cured and is suitable for bonding and riveting.

Material data

Friction properties

Static Friction Coefficient (@15bar, from the box)	0.50±0.05 μ
Static Friction Coefficient (@15bar, 100ºC)	0.52±0.05 μ
Dynamic Friction Coefficient (10bar, 10m/s)	0.47±0.05
Wear Rate (@10bar, 15m/s)	30 (at 150 ºC)
Tº Fading (@10bar, 10m/s)	>350 °C

Physical properties

Hardness (DIN53505)	87±5 Shore-D
Specific Gravity (ASTM D792)	1.85±0.05 gr/cm3

Mechanical properties

Tensile Strength (ASTM D638)	15.2±2 N/mm²
Compressive Strength (ISO 844:2014)	160±5 N/mm²
Shear Modulus (ASTM D2344-00)	2070±100 N/mm²
Poison coefficient (ASTM D638)	0.26±0.03
Young Modulus (ASTM D638)	5220±100 N/mm²

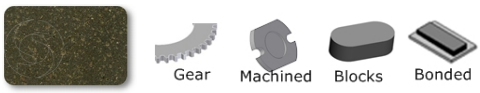
Recommended Working Values

Tº Max. Continuous Operation	250 °C
Tº Max. Intermittent Operation	350 °C

Material type

Rigid

Appearance / Formats



Applications

Agricultural and bulding machinery · Brake blocks · Brake pads · Callipers for industrial applications · Cones segments for machinery · Gear discs for industrial devices · Miscellaneous industrial brakes / clutches

Price Level

€ € €

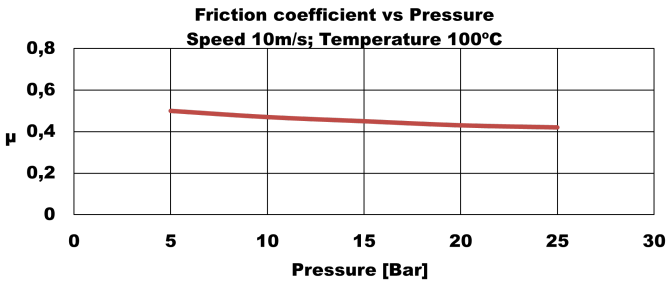
Reach (EC)1907/2023 - RoHS 2015/863/EU

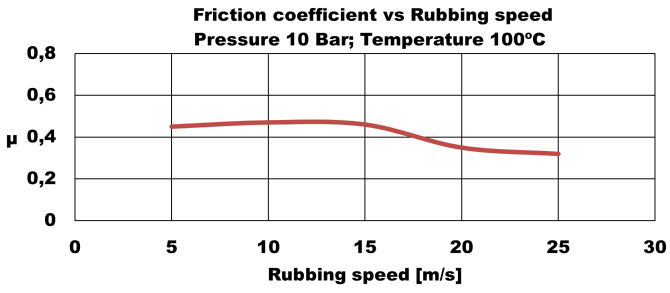
Compilance

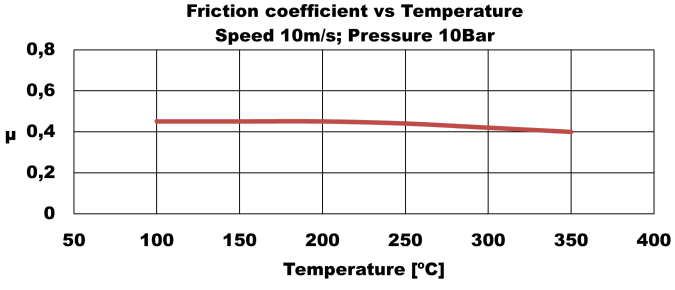
Others

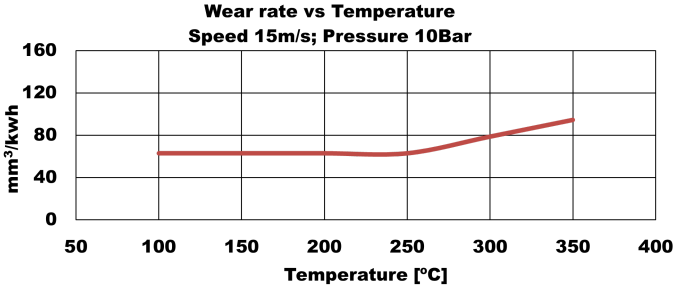
Recommended Mating Surface	Perlitic cast iron, hardness HB150-200
Recommended Adhesives	Thermosetting adhesive
Oil Resistant	Yes

Charts









Rubbing speed, temperature and pressure are related. Changing any values will change other. The values shown represent typical conditions, but are not ultimate limits of the material.