

ID Material:  
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# TF1200

TF1200 is a ProTec Friction standard formulation which is suitable for light medium duty. It is a rigid material, with low wear and very stable friction performance. The material's main composition consists of phenol resins with a NBR bonding system, short fibers, friction modifiers and fillers. TF1200 is fully cured and suitable for bonding and riveting.

## Material Data

### Friction Properties (according to graphics)

Static Friction Coefficient (15bar, from box):	0.45 ± 0.05	μ
Static Friction Coefficient (15bar, 100oC):	0.50 ± 0.05	μ
Dynamic Friction Coefficient (10bar, 10m/s):	0.40 ± 0.05	μ
Wear Rate (10bar, 15m/s):	120 ± 10	mm <sup>3</sup> /kwh
To Fading (10bar, 10m/s):	>662°	°F

### Physical Properties

Hardness (DIN53505):	85±5	Shore-D
Specific Gravity (ASTM D792-91):	1.8±0.05	gr/cm <sup>3</sup>
Thermal Conductivity (ASTM E1952-01):	0.44±0.01	W/m <sup>2</sup> K
Shear resistance (ISO 6312:2001):	22±2	N/mm <sup>2</sup>

### Mechanical Properties

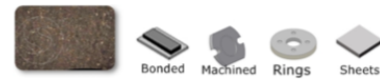
Tensile Strength (ASTM D638-10):	14 ± 5	N/mm2
Compressive Strength (UNE 53205):	140 ± 5	N/mm2
Poisson Coefficient:	0.27 ± 0.03	
Young Modulus (ASTMD 638-10):	3896 ± 100	N/mm2

### Recommended Working Values

T° Max. Continuous Operation:	482	°F
T° Max. Intermittent Operation:	662	°F

### Material Type : Rigid material

### Appearance / Formats



### Applications

Agricultural and building machinery - Callipers for industrial applications  
- Coned segments for machinery - Friction washers - Gear discs for industrial devices - Industrial clutches - Rings segments for machinery

Price Level : \$\$\$\$

Reach (EC) 1907/2006 - RoHS 2011/65/EU : Compliance

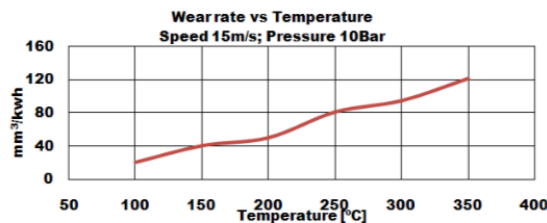
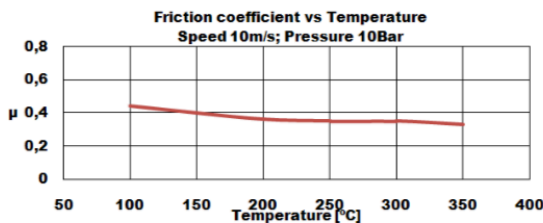
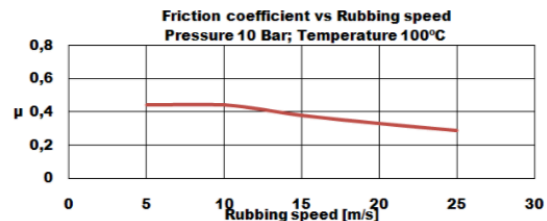
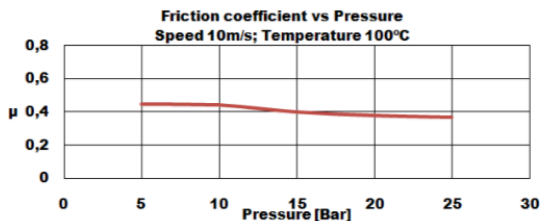
### Other

Recommended Mating Surface: Perlitic cast iron, hardness HB150-200

Recommended Adhesives: Thermosetting adhesive

Oil Resistant: Yes

The above data is taken from specific test parameters. Results can vary in different application conditions.



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.