



INDUSTRIAL PRODUCTS CATALOGUE



ASBESTOS FREE FRICTION SHEETS

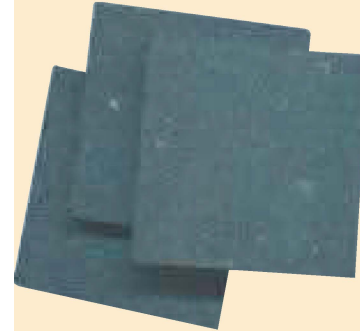
COMPO

FRICTION SHEET HCAF 211-GG



COMPO

FRICTION SHEET HCAF 216-GG



is one of the 'COMPO' range of Non asbestos friction materials, it is rigid moulded product, dark grey in colour and non-metallic Substances in a random dispersion and uses a specially developed resin as matrix which contributes to both the strength and performance of material. This material is produced only in flat sheet form and suitable for use under dry or oil immersed operating conditions HCAF 211 GG has medium friction with excellent fade and wear resistance. It machines well and suitable for use at a variety of duty levels, yielding consistent performance characteristics. This material is manufactured with ground finish on both surfaces, so may be bonded on either side.

APPLICATIONS:- Industrial Disc Brakes, Industrial Clutches, Tractor Steering Clutches

TECHNICAL DATA :-

Co-efficient of Friction for Design Purpose 0.35 (dry)

RECOMMENDED OPERATING TEMPERATURES :-

Maximum operating temperature	350°C
Maximum continuous temperature	150°C
Unit pressure	70-600 KN/m ²
Maximum rubbing speed	18 m/sec.

PHYSICAL PROPERTIES :-

Data based on standard test methods:

Specific gravity	1.65/1.90
Rockwell Hardness	L65-85
Ultimate compressive strength	600 kg/cm ²
Ultimate shear strength	115 kg/cm ²
Ultimate tensile strength	135 kg/cm ²
Thermal conductivity	0.97 W/m°C

is a rigid moulded non asbestos friction material which is mottled slate Grey in appearance, having random organic fibre base and containing metallic inclusions in the form of brass chippings. It is available in flat sheet form only and is suitable for use in either dry or in oil immersed applications. HCAF 216 GG possesses high mechanical strength together with a medium co-efficient of friction and low rate of wear. It machines well and discs can be gear-cut on the circumference, for use in multiplate clutches. When used in oil, the co-efficient of friction reduces considerably from 0.32 to 0.17 level. The friction level in oil can be influenced by the presence of or lack of suitable grooving pattern. This material is suitable for use at medium to heavy levels of duty.

APPLICATIONS:- Clutches for marine gear boxes. Steering clutches for tractors. Clutches for power presses.

TECHNICAL DATA :-

Co-efficient of Friction for Design Purpose 0.32 (dry)

RECOMMENDED OPERATING TEMPERATURES :-

Maximum operating temperature	350°C
Maximum continuous temperature	150°C
Unit pressure (Dry)	70-600 KN/m ²
Unit pressure (In oil)	30-300 KN/m ²
Maximum rubbing speed	18 m/sec.

PHYSICAL PROPERTIES :-

Data based on standard test methods:

Specific gravity	1.65/1.85
Ultimate tensile strength	150 kg/cm ²
Ultimate shear strength	125 kg/cm ²
Ultimate compressive strength	600 kg/cm ²
Rockwell Hardness	L85
Gear Tooth Strength	350 kg/cm ²
Thermal conductivity	0.529 W/m°C

HCAF 211GG and HC AF 216GG are available in flat sheet form only. So the rest of the properties are same.

SIZE RANGE :-

Thickness : 3 mm to 70 mm, Maximum Length : 500 mm, Maximum width : 500 mm

NOTE :-

The continuous temperature quoted is for constant slip condition. It is possible to exceed the recommended maximum continuous temperature for intermittent applications upto 225°C for long periods.

RECOMMENDED MATING SURFACE :-

Good quality close grained pearlitic Cast iron. If steel, then forged or cold rolled with a Brinell Hardness of 200 or over. Cast Steels are not recommended for use as mating surface.

MACHINING DETAILS :-

Carbide tipped tools are recommended for use with this material for drilling, turning and boring.