

## FRICION SHEET COMP<sup>o</sup> CM-11



COMP<sup>o</sup> CM-11 is a rigid moulded non-metallic friction material with a random fibre asbestos base. It possesses high mechanical strength together with a medium co-efficient of friction and a low rate of wear. It is suitable for either dry or under oil immersed conditions. CM-11 is

available in flat sheet form. Gear tooth can be cut from CM-11 with normal gear cutting facilities.

### APPLICATIONS:

Industrial clutches, Marine Gear Box clutches, Tractor steering Clutches and Industrial Brakes.

### TECHNICAL DATA:

Friction  
 $\mu$  for design purpose : 0.3(Dry)

### PHYSICAL PROPERTIES (NOMINAL):

Data based on standard test methods.

Ultimate tensile strength : 280 kg/cm<sup>2</sup>  
 Ultimate shear strength : 112 kg/cm<sup>2</sup>  
 Ultimate compressive strength : 1800 kg/cm<sup>2</sup>  
 Specific gravity : 1:8

### RECOMMENDED OPERATING TEMPERATURE:

Maximum Temperature : 350°C  
 Maximum continuous temperature : 175°C

### NOTE:

It is possible to exceed the recommended maximum temperature for short periods. The recommended maximum continuous temperature is commensurate with a reasonable rate of wear.

### RECOMMENDED MATING SURFACE:

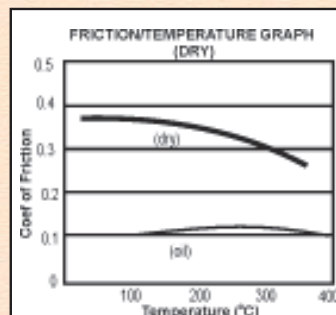
- Good quality close grain or alloy cast iron.
- If steel, then forged or cold rolled with a Brinell hardness of 200 or over. Cast steels are not recommended for use as mating surfaces.

### SIZE RANGE:

Thickness  
 3mm to 50 mm  
 Maximum length : 838 mm (33")  
 Maximum width : 533 mm (21")

### MACHINING DATA:

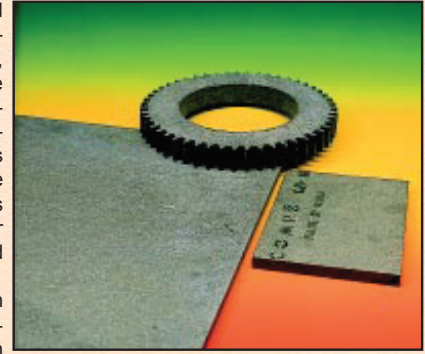
Carbide tipped tools are recommended for use with this material for drilling and boring. More details on machining data can be supplied on request.



## FRICION SHEET COMP<sup>o</sup> CM-16

COMP<sup>o</sup> CM-16 is a rigid moulded friction material, slate grey in colour, having a random fibre asbestos base and containing metallic inclusions in form of brass chippings. It is available in flat sheet form and is suitable for use either dry or in oil immersed applications.

CM-16 possesses high mechanical strength together with a medium



coefficient of friction and a low rate of wear. It machines well and discs can be gear-cut on the circumference, for use in multi-plate, clutches. When used in oil, the coefficient of friction is reduced considerably as the curves show. The friction level in oil can be influenced by the presence of or lack of a 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, machine tools and other industrial plant & machinery etc.,

### TECHNICAL DATA:

Friction  
 $\mu$  for design purposes : 0.28 (dry)

### PHYSICAL PROPERTIES (NOMINAL):

Data based on standard test methods.

Specific gravity : 2.2  
 Ultimate tensile strength : 290 kg/cm<sup>2</sup>  
 Ultimate compressive strength : 2760 kg/cm<sup>2</sup>  
 Ultimate shear strength : 120 kg/cm<sup>2</sup>

### RECOMMENDED OPERATING RANGE

#### UNIT PRESSURE:

Dry : 1.0-7.0 kg/cm<sup>2</sup>  
 In oil : 2-21 kg/cm<sup>2</sup>  
 Maximum temperature : 350°C  
 Maximum continuous temperature : 175°C

### RECOMMENDED MATING SURFACES:

Good quality fine grained pearlitic cast iron. Cast steel is not suitable for use as a mating surface but forged or cold rolled steel with a Brinell hardness of 200 or more may be used.

### SIZE RANGE:

Thickness  
 3mm to 50 mm  
 Maximum length - 838mm(33")  
 Maximum width - 533 mm (21")

### MACHINING DATA:

Carbide tipped tools are recommended for use with this material for drilling and boring. More details on machining data can be supplied on request.

