





# **INDUSTRIAL BRAKE LINERS**

CHARMINAR Bonded Asbestos industrial brakes is a flexible, solid woven, asbestos based friction materials, made from yarn spun around brass-wire, which contributes considerably to its strength. CHARMINAR bonded asbestos industrial brake linings have a medium/highcoefficient of friction combined with moderate temperature and wear resistance. It is available in roll form and segments, cones and special shapes can easily be cut from it. Being a flexible material it is possible to form it to radius when fitting it facilitate this operation, it may be heated uniformly to a moderate temperature to soften the impregnate. It is designed solely for use under dry conditions. CHARMINAR Bonded Asbestos Industrial brake linings are supplied with both surfaces unground.

#### **APPLICATION:**

CHARMINAR Industrial brakes is suitable for a great variety of brake & clutch components in the general industrial field such as Industrial band and drum brake linings, Plate and cone clutch linings (on e.g., Cranes, Lifts, excavators winches, concrete mixers, drop hammers, mine winding appliances, underground haulages, tippers, oil well draw works, road rollers, sugar mill centrifuges) Certain heavy road transport vehicles and tractors.

**DESIGN VALUE:** The coefficient of friction for design should be based upon the graph, the severity of application, and maximum anticipated operating temperature being taken into account. Normal engineering practice should be followed in applying an appropriate safety factor to torque requirements of brake/clutch units.

## SIZE RANGE: (Nominol)

Supplied in rolls of approximately 15 meters (50ft.) in thickness from 4.8mm (3/16") to 19.1mm (3/4") and in widths from 25.4mm (1") to 463.6mm (18%")

## RECOMMENDED MATING SURFACE:

- (a) Good quality close grain or alloy cast iron.
- (b) If steel, then forged or cold rolled with a Brinell of 200 or over, cast steel is not recommended for use as mating surface.

TECHNICAL DATA : AVERAGE (Data based on international standard test methods)	
Tensile Strength	246kg/cm² (3,500 lbs /sq.In)
Compressive Strength (for 10% compression)	633kg/cm² (9,000 lbs /sq.In)
Rivet holding capacity	900kg/cm² (12,800 lbs /sq.In)
Specific gravity	1.75gm/cc 0.06 lbs /cu.In

## RECOMMENDED OPERATING TEMPERATURES:

Maximum Temperatures - 260°C (500°F)

Maximum Continuous Temperatures - 125°C (257°F)

#### NOTE:

The continuous temperature quoted is for constant slip conditions. For intermittent applications, bulk temperatures of 160°C are acceptable for long periods.

