

PRODUCT OPTIMIZATION OF INDUSTRIAL GRADE CONDUCTING BRUSHES AND GRAPHITE BASED GASKETS

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1.1. Product Optimization of Industrial Grade Conducting Brushes of Graphite

Conducting brushes are used in electric equipment such as blenders, starter motors in vehicles and alternators in vehicles. They are produced in different sizes and shapes, and have become a commodity that is used in industry and households. The principle ingredient of conducting brushes is graphite. They are made by mixing finely powdered graphite with a polymeric resin and casting to the required shape. The type of polymer, its composition and degree of polymerization are key factors in determining the conductivity, strength and resistance to wear and tear. Therefore, the above conditions are to be optimized for manufacturing industrial grade conducting brushes.

21.2. Manufacturing Graphite based Gaskets for gasoline engines by means of ploythene and polyethylene

Gaskets are used to seal against liquids in motor engines/auto mobiles. Graphite gaskets belong to the soft (non- metallic) group. These soft gaskets are suitable for applications in a wide range of environmental conditions, for example, from general environments to corrosive environments¹. They can be used at low to medium pressure conditions. Oxidation resistance is the most important quality of graphite gaskets.

Two different types of graphite based gasket sheets were made and tested in this research:

1. Polythene based gasket sheets
2. Polyurethane based gasket sheets

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