
INTERNATIONAL STANDARD



3156

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION • МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ • ORGANISATION INTERNATIONALE DE NORMALISATION

Stranded wire ropes for mine hoisting — Impregnating compounds, lubricants and service dressings — Characteristics and tests

Câbles d'extraction toronnés utilisés dans les mines — Composés d'imprégnation et lubrifiants utilisés en cours de fabrication et en service — Caractéristiques et essais

First edition — 1976-07-01

get full document from standards.iteh.ai

UDC 677.72.004.12 : 622.6 : 620.1

Ref. No. ISO 3156-1976 (E)

Descriptors : mining equipment, mine cables, wire ropes, components, specifications, tests, characteristics.

Price based on 4 pages

FOREWORD

ISO (the International Organization for Standardization) is a worldwide federation of national standards institutes (ISO Member Bodies). The work of developing International Standards is carried out through ISO Technical Committees. Every Member Body interested in a subject for which a Technical Committee has been set up has the right to be represented on that Committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work.

Draft International Standards adopted by the Technical Committees are circulated to the Member Bodies for approval before their acceptance as International Standards by the ISO Council.

International Standard ISO 3156 was drawn up by Technical Committee ISO/TC 82, *Mining*, and circulated to the Member Bodies in August 1973.

It has been approved by the Member Bodies of the following countries :

Austria	Germany	South Africa, Rep. of
Belgium	Hungary	Spain
Bulgaria	India	Sweden
Chile	Ireland	Thailand
Czechoslovakia	Netherlands	Turkey
Egypt, Arab Rep. of	Poland	United Kingdom
France	Romania	Yugoslavia

No Member Body expressed disapproval of the document.

Stranded wire ropes for mine hoisting — Impregnating compounds, lubricants and service dressings — Characteristics and tests

1 SCOPE AND FIELD OF APPLICATION

This International Standard specifies the nature and properties of impregnating compounds and lubricants for stranded wire ropes for mine hoisting, together with the corresponding test methods. In particular, it is concerned with

- a) impregnating compounds for fibre main cores, fibre covers, and fibre inserts;
- b) lubricants used in manufacture;
- c) service dressings.

The different requirements for the two basic types of winder (Koepe or drum) are recognized where significant.

2 GENERAL REQUIREMENTS

The lubricants and impregnating compounds used in the rope shall meet the following requirements :

- a) they shall contain a non-volatile base material, which may be dispersed in a petroleum solvent;
- b) they shall be homogeneous and shall, if heating is required for application, return to substantially the same state after heating as before heating, i.e. they shall be heat reversible;
- c) they shall be compatible with all other compounds used in the rope;
- d) they shall not contain grit, abrasive matter, deliberate weighting matter, water, chlorides or other similar impurities;

e) they shall be resistant to significant age embrittlement;

f) they shall not contain any additive or compound which, in combination with moisture in any of its forms, could form products inherently corrosive to steel or zinc, or detrimental to the fibres comprising the rope or to the pulley lining;

g) they shall not contain any additive or compound which, due to degradation by either heat or exposure to natural sunlight, could form products inherently corrosive to steel or zinc, or detrimental to the fibres comprising the rope or to the pulley linings;

h) if solvents are used, they shall not contain benzene or chlorinated hydrocarbons;

i) they shall not be injurious in any way to personnel using them if reasonable safety precautions and procedures are used.

Additionally, for Koepe winding ropes, the lubricant and lubricating systems shall meet the following requirements under normal operating conditions :

j) the tendency for exudation of lubricant to the surface of the rope shall be minimal;

k) the coefficient of friction between the rope and the pulley lining shall be sufficient to ensure adequate grip.

These requirements are normally achieved by using a combination of lubricants and appropriate lubrication methods. The choice of the lubricant shall be the subject of agreement between the rope manufacturer or supplier and the purchaser.