

Australian Standard®

Methods of testing conveyor and elevator belting

Method 12: Determination of combustion propagation characteristics of conveyor belting*

PREFACE

This Standard was prepared by the Standards Australia Committee on Conveyor and Elevator Belting, to supersede AS 1334.12—1986, and is one of a series for determining the properties of conveyor and elevator belting.

This edition of the Standard includes modifications to the test gallery dimensions to bring it into line with European test galleries, and preparation of test samples in accordance with DIN 22100. The changes to the samples were considered necessary to cope with steel cord belting with thick covers which would not suffer damage to the core rubbers during the test. The trestle shown in Figure 2 has been strengthened to include a centre longitudinal bar to minimize deflection of the transverse rollers when large test pieces such as steel cord belts are placed on the trestle. A sketch showing the preferred method of restraining the test pieces during test is also provided.

This test has been adopted due to the proven reliability of small laboratory scale flame tests to safeguard against propagation of fire along conveyor belting.

METHOD

1 SCOPE This Standard sets out a method for determining the flame propagation characteristics of a horizontally orientated specimen of conveyor belting.

2 APPLICATION This method is primarily used for type approval of conveyor belting for use in underground coal mines.

3 PRINCIPLE Large test pieces (approximately 2 m × 1 m) of belting are, in turn, located horizontally on the trestle of a test gallery in a controlled airstream and subjected (from underneath) to controlled flame from a propane burner for a specified period and then left on the trestle until all flame and glow have disappeared. Measurements of the undamaged length of each test piece are then taken.

4 APPLICATION TO THE ASSESSMENT OF FIRE HAZARD The fire hazard of the belting is a function of the characteristics of the belting. It is related to how belting is installed and how it is used. The environment in which it is present is also of major importance.

* Commonly referred to as the 'Propane Burner Gallery Flame Test'.