M422-12

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Fire-performance and antistatic requirements for conveyor belting

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Technical Committee on Fire-Performance and Antistatic Conveyor Belting

E. Zalok	Carleton University, Ottawa, Ontario	*Chair*
G. Bonnell	Natural Resources Canada (CANMET), Sudbury, Ontario	
K. Buchinski	Potash Corporation of Saskatchewan Inc., Saskatoon, Saskatchewan	
N. Crocker	Ministry of Advanced Education, Health & Labour Saskatchewan Saskatoon, Saskatchewan	
J. Freitas	Quinsam Coal Corp, Campbell River, British Columbia	
G.B. Ganguly	International Conveyors Ltd., Aurangabad, Maharashtra, India	*Associate*
M. Harrington	Teck Coal Ltd — Fording River Operations, Elkford, British Columbia	*Associate*
D. Henry	The Canadian Salt Company Ltd, Pugwash, Nova Scotia	*Associate*
D. Hindy	Alberta Employment and Immigration, Edmonton, Alberta	
A (Aamer) Hussain	International Conveyors Ltd., Lynbrook, New York, USA	*Associate*
A (Anver) Hussain	International Conveyors Ltd., Aurangabad, Maharashtra, India	*Associate*
I. Jordan	Continental Mine & Industrial Supply Ltd., Saskatoon, Saskatchewan	*Associate*
S.L Joseph	Fenner Dunlop Americas Port Clinton, Ohio, USA	*Associate*
I. Lanier	Agrium Vanscoy Potash Operations, Vanscoy, Saskatchewan	
G. MacDonald	Ministry of Natural Resources Operations, Fernie, British Columbia	

G. Mansour	Ontario Ministry of Labour, Toronto, Ontario	*Associate*
S. Mutch	Veyance Technologies Inc., Marysville, Ohio, USA	
G. Normanton	Fenner Dunlop Americas, Lavonia, Georgia, USA	*Associate*
B. Schuh	Fenner Dunlop Americas (Bracebridge), Bracebridge, Ontario	
J. Wedzicha	Ontario Ministry of Labour, Sudbury, Ontario	
P. Woodland	Nova Scotia Labour and Advanced Education, Halifax, Nova Scotia	
S. Wymark	Fenner Dunlop Conveyor Belting Europe, Hull, United Kingdom	*Associate*
O. Simonetta	CSA Group, Mississauga, Ontario	*Project Manager*

Preface

This is the second edition of CSA M422, *Fire-performance and antistatic requirements for conveyor belting*. It supersedes the previous edition published in 1987 (R2011).

Changes to this edition include the following:

(a) The flame propagation test requirements have been updated, which has updated Clauses 3.3.2, 3.3.3, 4.3.1, and 4.3.2.
(b) The procedure for the electrical resistance added in Clause 4.4.4.2.
(c) Figures 4 and 5 have been replaced.
(d) Figures 6, 7 and 8 have been added.
(e) Figure 9 was previously named Figure 6.

CSA gratefully acknowledges that the development of this Standard was made possible, in part, by the financial support of the Canadian Association of Administrators of Labour Legislation for Occupational Safety and Health.

This Standard was prepared by the Technical Committee on Fire-Performance and Antistatic Conveyor Belting under the jurisdiction of the Standards Steering Committee on Occupational Health and Safety, and has been formally approved by the Technical Committee.

Notes:

(1) *Use of the singular does not exclude the plural (and vice versa) when the sense allows.*

(2) *Although the intended primary application of this Standard is stated in its Scope, it is important to note that it remains the responsibility of the users of the Standard to judge its suitability for their particular purpose.*

(3) *This Standard was developed by consensus, which is defined by* CSA Policy governing standardization — Code of good practice for standardization *as "substantial agreement. Consensus implies much more than a simple majority, but not necessarily unanimity". It is consistent with this definition that a member may be included in the Technical Committee list and yet not be in full agreement with all clauses of this Standard.*

(4) *To submit a request for interpretation of this Standard, please send the following information to* ***inquiries@csagroup.org*** *and include "Request for interpretation" in the subject line:*
(a) define the problem, making reference to the specific clause, and, where appropriate, include an illustrative sketch;
(b) provide an explanation of circumstances surrounding the actual field condition; and
(c) where possible, phrase the request in such a way that a specific "yes" or "no" answer will address the issue.
Committee interpretations are processed in accordance with the CSA Directives and guidelines governing standardization *and are available on the* Current Standards Activities *page at* ***standardsactivities.csa.ca****.*

(5) *This Standard is subject to periodic review, and suggestions for its improvement will be referred to the appropriate committee. To submit a proposal for change, please send the following information to* ***inquiries@csagroup.org*** *and include "Proposal for change" in the subject line:*
(a) Standard designation (number);
(b) relevant clause, table, and/or figure number;
(c) wording of the proposed change; and
(d) rationale for the change.

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Fire-performance and antistatic requirements for conveyor belting

1 Scope

1.1
This Standard specifies fire-performance and antistatic requirements for new (unused) conveyor belting for use in any part of a mining or excavation operation that is below the surface.

1.2
This Standard covers fire-performance and antistatic conveyor belting of the following types:
(a) Types A1 and A2 intended for use in explosive atmospheres; and
(b) Types B1-A, B1-B, B2, and C intended for use in non explosive atmospheres.

1.3
This Standard does not cover products of combustion or products of thermal degradation from conveyor belting subjected to fire or heating.
Note: *While the intent of this Standard is to establish a reasonable level of fire-performance for conveyor belting, it is recognized that any conveyor belt material could burn under conditions different from those described in this Standard. Therefore, to ensure a higher level of fire safety, consideration should be given to installation measures such as those listed in Annex A.*

1.4
In CSA standards, "shall" is used to express a requirement, i.e., a provision that the user is obliged to satisfy in order to comply with the standard; "should" is used to express a recommendation or that which is advised but not required; and "may" is used to express an option or that which is permissible within the limits of the standard.

Notes accompanying clauses do not include requirements or alternative requirements; the purpose of a note accompanying a clause is to separate from the text explanatory or informative material.

Notes to tables and figures are considered part of the table or figure and may be written as requirements.

Annexes are designated normative (mandatory) or informative (nonmandatory) to define their application.

2 Definitions
The following definitions shall apply in this Standard:

Antistatic (as applied to conveyor belting) — having a sufficient conductance to pass the electrical surface resistance test specified in this Standard.

Explosive atmosphere — an atmosphere where ignitable and explosive concentrations of gases, vapours, or dusts might occur.

Fire-performance (as applied to conveyor belting) — the characteristics of the belting that meet the criteria of the appropriate flame, drum friction, and flame propagation tests where specified in this Standard.