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CSA S807:19
National Standard of Canada

Specification for fibre-reinforced polymers

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Contents

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Preface

This is the second edition of CSA S807, *Specification for fibre-reinforced polymers*. It supersedes the first edition published in 2010.

Changes to this edition of S807 include the following:

- change to the scope of the Standard to include material properties of FRPs and the introduction of basalt fibers and specification of E-CR glass;
- addition of fine aggregate for sand coating; and
- addition of production lot size for straight, bent, and anchor-headed bars.

CSA acknowledges that the development of this Standard was made possible, in part, by the financial support of the following: Ontario Ministry of Transportation, le ministère des Transports du Québec, la Mobilité durable et de l'Électrification des transports, Fiberline Composites Canada, Tuf-Bar Inc., Pultrall Inc., Owens Corning Infrastructure Solutions, Shandong Safety Industries Co., Ltd, and B&B FRP Manufacturing Inc.

This Standard was prepared by the Subcommittee on Specification for Fibre-Reinforced Polymers, under the jurisdiction of the Technical Committee on Design and Construction of Building Components with Fibre-Reinforced Polymers and the Strategic Steering Committee on Structures Design, and has been formally approved by the Technical Committee.

This Standard has been developed in compliance with Standards Council of Canada requirements for National Standards of Canada. It has been published as a National Standard of Canada by CSA Group.

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.*
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   c) *where possible, phrase the request in such a way that a specific "yes" or "no" answer will address the issue.*

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   c) *wording of the proposed change; and*
   d) *rationale for the change.*

CSA S807:19
Specification for fibre-reinforced polymers

1 Scope

1.1
This Standard covers the material properties and the manufacturing requirements of fibre-reinforced polymer (FRP) bars or bars that are part of a grid for use in non-prestressed internal reinforcement of concrete components of structures (e.g., bridges, buildings, and marine structures).

1.2
This Standard covers FRPs that comprise
a) E-CR glass, carbon, aramid, or basalt fibres; and
b) isophthalic polyester, vinylester, or epoxy resins.

1.3
This Standard covers FRP bars having nominally solid circular or rectangular cross-section.

1.4
This Standard does not include FRP bars made of more than one type of fibre.

1.5
In this Standard, FRPs are classified on the basis of their fibres, strength, modulus, and durability.

1.6
In this Standard, “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 (non-mandatory) to define their application.

2 Reference publications
This Standard refers to the following publications, and where such reference is made, it shall be to the edition listed below, including all amendments published thereto.