



CONFORM® & CONFORM® CF8i

Code Compliance Guide

Ontario Building Code 2024 (O. Reg. 163/24)

Document No.: NCG-2026-01

Revision: Rev. 0

Date: January 2026

1. Purpose

This document summarizes the compliance of the CONFORM® and CONFORM® CF8i stay-in-place PVC concrete formwork systems with the applicable requirements of the Ontario Building Code 2024. The information presented is based upon third-party testing, engineering evaluations, and applicable referenced standards.

This guide is intended to assist Architects, Engineers, Code Officials, Specifiers, Contractors, and Owners in determining the suitability of CONFORM® for specific building applications.

2. Product Description

CONFORM® is a permanent stay-in-place PVC concrete forming system used to construct reinforced cast-in-place concrete walls.

Following concrete placement, the PVC formwork remains permanently attached to the wall, providing:

- Finished interior and exterior surfaces
- Corrosion resistance
- Moisture resistance
- Impact resistance
- Low-maintenance finish
- Long-term durability

CONFORM® CF8i incorporates factory-installed polyurethane insulation within the wall assembly to provide enhanced thermal performance.

3. Applicable Codes and Standards

This guide has been prepared with reference to:

- Ontario Building Code 2024 (O. Reg. 163/24)
- National Building Code of Canada 2020
- CSA A23.3 - Design of Concrete Structures
- Applicable CAN/ULC fire test standards

4. Interior Finish Requirements

4.1 Flame Spread Rating and Smoke Developed Classification

OBC Article 3.1.12 Determination of Ratings

Testing performed in accordance with **CAN/ULC-S102.2** demonstrated that CONFORM® with concrete fill achieved:

- Flame Spread Rating (FS): **≤25**
- Smoke Developed Classification (SD): **≤350**

Supporting Report: **Reference (3)**

Testing performed on the polyurethane insulation used in CONFORM® CF8i in accordance with **CAN/ULC-S102** and **CAN/ULC-S127** demonstrated:

- Flame Spread Rating (FS): **≤280**
- Smoke Developed Classification (SD): **≤405**

Supporting Report: **Reference (4)**

4.2 Interior Finish Requirements

OBC Article 3.1.13.2 Flame Spread Rating

CONFORM® complies with the flame spread requirements applicable to interior wall finishes, with a tested Flame Spread Rating not exceeding 25.

OBC Article 3.1.13.6 Corridors

CONFORM® complies with the flame spread requirements applicable to corridor wall finishes.

OBC Article 3.1.13.7 High Buildings

CONFORM® is not intended for use where the applicable smoke-developed classification exceeds the limits prescribed for unsprinklered high buildings.

Use in sprinklered high buildings shall be subject to the applicable provisions of the Ontario Building Code.

OBC Article 3.6.4.3 Concealed Plenum Spaces

CONFORM® is not intended for installation within concealed spaces used as air plenums where smoke-developed classification exceeds the permitted limits.

5. Noncombustible Construction Requirements

5.1 Noncombustible Materials

OBC Article 3.1.5.1 Noncombustible Materials

Concrete wall assemblies utilizing CONFORM® have been evaluated in accordance with **CAN/ULC-S135** and have demonstrated compliance with the applicable requirements for noncombustible construction.

Supporting Reports: **Reference (1), (5), (6)**

5.2 Combustible Components on Exterior Walls

OBC Article 3.1.5.5 Combustible Cladding on Exterior Walls

CONFORM® CF8i exterior wall assemblies were tested in accordance with **CAN/ULC-S134** and satisfied the applicable exterior wall fire performance requirements.

Supporting Reports: **Reference (7)**

Current limitation:

- Sprinklered buildings & Buildings not exceeding three storeys

5.3 Combustible Interior Finishes

OBC Article 3.1.5.12 (2) Combustible Interior Finishes

CONFORM® complies with the applicable flame spread requirements for combustible interior finishes.

Tested Flame Spread Rating: **≤150**

5.4 Foamed Plastic Insulation

OBC Article 3.1.5.15 Foamed Plastic Insulation

The polyurethane insulation incorporated within CONFORM® CF8i complies with the applicable flame spread requirements for foamed plastic insulation. Tested Flame Spread Rating: **≤500**

The insulation is protected from the adjacent building space by the cast-in-place concrete core. Where insulation becomes exposed to the building interior, additional thermal barrier protection may be required in accordance with the Ontario Building Code Article 3.1.5.15(3).

6. Fire Resistance Ratings

Determination of Fire Resistance

OBC Article 3.1.7.1 Determination of Fire Resistance

Testing performed in accordance with **CAN/ULC-S101** demonstrated a **2-hour fire-resistance rating** for bearing concrete wall assemblies utilizing CONFORM® CF6. Engineering analysis prepared by Locke MacKinnon Domingo Gibson & Associates Ltd. concluded that equivalent wall assemblies utilizing CONFORM® CF8i also satisfy the requirements for a **2-hr FFR**.

Supporting Reports: **Reference (8), (9)**

Fire Stopping

OBC Article 3.1.9.1 Fire Stops

Listed firestop systems shall be installed where required by the Ontario Building Code.

Where firestop systems require direct attachment to the concrete substrate, removal of the PVC finish may be necessary to permit proper installation.

7. Exterior Wall Requirements

Spatial Separation and Exposure Protection

OBC Article 3.2.3.7 Construction of Exposed Building Face

CONFORM® wall assemblies tested in accordance with **CAN/ULC-S134** satisfy the applicable exterior wall fire performance requirements referenced by this Article. As per 3.2.3.7.(3), the noncombustible cladding requirement of 3.2.3.7.(1) are waived for Groups A, B, C, D and Group F Division 3 occupancies and for Groups E and Group F Divisions 1 or 2 occupancies, where the maximum permitted area of unprotected openings is more than 10% of the exposed building face, since the wall assembly with CONFORM® formwork complies with the requirements of Article 3.1.5.5., when tested in conformance with CAN/ULC-S134.

Protection of Exterior Building Face

OBC Article 3.2.3.8 Protection of Exterior Building Face

The requirements for protection of foamed plastic insulation may be satisfied where the wall assembly complies with the applicable exterior wall fire test requirements of CAN/ULC-S134. As per 3.2.3.8.(3), the requirement for protection of foamed plastic insulation of 3.2.3.8.(1) is waived, since the insulated CONFORM® CF8i formwork complies the requirements of Article 3.1.5.5., when tested in conformance with CAN/ULCS134.

8. Structural Requirements

OBC Article 4.3.3.1 Design Basis for Plain, Reinforced and Prestressed Concrete

Concrete wall assemblies constructed using CONFORM® shall be designed by a Professional Engineer licensed in the jurisdiction of construction.

Structural design shall comply with:

- CSA A23.3 - Design of Concrete Structures
- Ontario Building Code
- Applicable project loading requirements

9. Limitations of Use

This guide summarizes the Code Compliance of the CONFORM® product family based on available testing and Engineering evaluations.

Project-specific design remains the responsibility of the Engineer of Record.

Installation shall be completed in accordance with Nuform Building Technologies installation manuals and applicable Engineering drawings.

10. Supporting Test Reports (References)

- (1) BMEC Product Review for Nuform Building Technologies Inc. Stay-in-place Wall Form (CONFORM®) for Use in Noncombustible Buildings by Randal Brown & Associates Ltd., RBAL File No. 08-056, November 20, 2009.
- (2) CAN/ULC - S127-07, Insulation Corner Wall Test to Determine FSV by Exova Canada Inc, Report No. 09-002-946(B), January 20, 2010
- (3) CAN/ULC-S102.2-07, Surface Burning Characteristics of "PT8021ELS" by Exova Canada Inc, File No. 16-002-223, April 28, 2016.
- (4) CAN/ULC-S102-07, Surface Burning Characteristics of "FE244 / FE800 (HFC-134a Blown)" Insulation by Exova, Report No. 09-002-946(A), January 20, 2010.
- (5) CAN/ULC-S135, Standard Method of Test for Determination of Degrees of Combustibility of Building Materials using an Oxygen Consumption Calorimeter (Cone Calorimeter), by Underwriters Laboratories Inc., File No. R19435, June 16, 2003
- (6) BMEC Application by Ontario Building Materials Evaluation Commission, BMEC Application No. A2009-08: CONFORM®, July 30, 2010.
- (7) CAN/ULC-S134-92, Standard Method of fire Test of Exterior Wall Assemblies by National Research Council of Canada, Report No. B-4115.1 Revised, August 10, 1999
- (8) CAN/ULC-S101-M89, Standard Methods of Fire Endurance Tests of Building Construction and Materials by Underwriters' Laboratories of Canada, File No. CR2598, April 22, 1997.
- (9) Fire Resistance Evaluation - Royal Building Systems™ (CONFORM®) by Locke MacKinnon Domingo Gibson & Associates Ltd. (LMDG), File No. 97-172, August 26, 1997.

Nuform Building Technologies Inc.
 100 Galcat Drive, Unit#2, Woodbridge, Ontario, Canada L4L 0B9
 toll free.1.877.747.WALL • phone. 905.652.0001 • fax.905.652.0002
www.nuformdirect.com