



Ontario

**Building Materials Evaluation
Commission**

**Commission d'évaluation des
matériaux de construction**

777 Bay Street, 12th Floor
Toronto, Ontario, M5G 2E5

777, rue Bay, 12^e étage
Toronto (Ontario) M5G 2E5

T: 416 585 4234

W: www.ontario.ca/buildingcode/

T: 416 585 4234

W: www.ontario.ca/buildingcode/

BMEC AUTHORIZATION: 18-04-385 VIPERT Potable Water Tubing CTS-OD, SDR-9

Date of Authorization: April 26, 2018

Date of Expiry¹: April 26, 2023

1. Applicant

CB Supplies Ltd.
5266 Timberlea Blvd
Mississauga, ON L4W 2S6

Tel: 604 451-5355

Fax: 604 538-0554

Web: www.cbsupplies.ca

2. Manufacturing Facility

CB Supplies Ltd.
3325 190th Street
Surrey, BC V3Z 1A7

3. Authorization

The VIPERT Potable Water Tubing CTS-OD, SDR-9 (the "VIPERT Tubing") is a hot and cold water distribution tubing manufactured from bimodal polyethylene, also known as polyethylene of raised temperature (PE-RT) with a cell classification of PE445574A.

The VIPERT Tubing comes in sizes (CTS) outer diameter (OD): 3/8" (PRT2), 1/2" (PRT3), 3/4" (PRT4), 1" (PRT5), 1 1/4" (PRT6), 1 1/2" (PRT7) and 2" (PRT8) and is available in red, white or blue.

The VIPERT Tubing is made with a standard dimensional ratio of 9 (SDR9), which is the ratio of the outside diameter to the wall thickness. The VIPERT Tubing made with a standard dimensional ratio of 9 has a pressure rating of 689 kPa (100 psi) at 82^o C (180^o F) and 1100 kPa (160 psi) at 23^o C (73^o F).

Additional descriptive information is provided in documents supplied by the Applicant listed in Appendix A.

¹ This Authorization expires on the date shown. It is the responsibility of Authorization holders to make a complete application considering the time for review and complexity of the new application.

Reports and assessment provided by the Applicant demonstrate that if the VIPERT Tubing is manufactured, designed, constructed, and installed in accordance with the manufacturer's instructions and limitations, and the specific terms and conditions stated in this authorization the use of the VIPERT Tubing is considered to be not in contravention of Article 7.2.5.7 "Crosslinked Polyethylene Pipe and Fittings" and Article 7.2.11.2. "Certification or Conformance" of Division B of the Building Code.

All other requirements pertaining to the manufacturing, design, construction, installation and maintenance are subject to the requirements of the Building Code, and subject to the following terms and conditions contained in 4 and 5 below:

4. Specific Terms and Conditions

1. This authorization is valid only for CB Supplies Ltd.'s VIPERT Potable Water Tubing CTS-OD, SDR-9.
2. This authorization is valid only for VIPERT Tubing sizes (CTS) outer diameter (OD): 3/8" (PRT2), 1/2" (PRT3), 3/4" (PRT4), 1" (PRT5), 1 1/4" (PRT6), 1 1/2" (PRT7) and 2" (PRT8).
3. The VIPERT Tubing may be used in hot and cold water piping.
4. The VIPERT Tubing may be used as potable water piping and water service pipe.
5. The VIPERT Tubing may be used in buildings permitted to be of combustible and non-combustible construction.
6. The VIPERT Tubing shall not be installed where the operating pressure exceeds 689kPa (100 psi) at 82^o C (180^o F).
7. The VIPERT Tubing shall not be installed where the operating pressure exceeds 1100kPa (160 psi) at 22^o C (73^o F).
8. The VIPERT Tubing shall not be used if it exhibits damage such as cuts, deep scratches, gouges, kinks, fading or discolouration, evidence of grease, tar or chemical exposure.
9. The VIPERT Tubing shall be installed in accordance with "Installation Guidelines for CB Supplies VIPERT™", revised August 15, 2017.
10. The VIPERT Tubing shall maintain the appropriate certification and/or listing in accordance with:
 - a. CSA B137.18 "Thermoplastic pressure piping compendium"
 - b. NSF/ANSI 14 "Plastics Piping System Components and Related Materials"
 - c. NSF/ANSI 61 "Drinking Water System Components – Health Effects"
 - d. ASTM E84 "Standard Test Method For Surface Burning Characteristics of Building Materials"
 - e. CAN/ULC S102.2 "Standard Method of Test for Surface Burning Characteristics of building Materials and Assemblies".

5. General Conditions

1. The use of the VIPERT Tubing as described in Section 3. and the Specific Terms and Conditions set out in Section 4 must comply with:
 - (a) the *Building Code Act, 1992*, (the "Act") as amended or re-enacted,
 - (b) except as specifically authorized herein, the Building Code as amended or remade, and
 - (c) all other applicable legislation.
2. A copy of this Authorization shall accompany each application for a building permit and shall be maintained on the site of the construction with the building permit.
3. The Applicant specified in Section 1. shall promptly notify the BMEC of:
 - (a) the failure of the Applicant to comply with any of the Specific Terms and Conditions set out in Section 4,
 - (b) the failure of the material, system or building design that is the subject matter of this Authorization to
 - (i) comply with any of the Specific Terms and Conditions set out in Section 4, or
 - (ii) provide a satisfactory level of performance in situ, or
 - (c) the occurrence of any of the events described in General Conditions 5.4.(a), (b), (e) or (f).
4. The BMEC may amend or revoke this Authorization at any time on its own initiative, or at the request of the Applicant specified in Section 1. Without restricting the foregoing, the BMEC may amend or revoke this Authorization where it determines that:
 - (a) any change has been made to:
 - (i) the name of the Applicant specified in Section 1,
 - (ii) the address or other contact name information of the Applicant specified in Section 1,
 - (iii) the ownership of the Applicant specified in Section 1,
 - (iv) the manufacturing facilities specified in Section 2,
 - (v) the material, system, or building design that is the subject matter of this Authorization, or
 - (vi) a test method relevant to this Authorization,
 - (b) the Applicant has failed to comply with any of the terms and conditions set out in this Authorization,
 - (c) in the opinion of the BMEC, the use of the material, system or building design authorized herein provides an unsatisfactory level of performance in situ,

- (d) in the opinion of the BMEC, amendment or revocation of the Authorization is appropriate on the basis of potential danger to public health and safety,
- (e) the *Act* or Building Code has been amended, re-enacted or remade in a manner relevant to this Authorization,
- (f) this Authorization was issued on mistaken, false or incorrect information, or
- (g) a revision of an editorial nature is appropriate.

Dated at Toronto this 26th day of April 2018

BUILDING MATERIALS EVALUATION COMMISSION

Leo Grellette
Chair, Building Materials Evaluation Commission

ENCLOSURES: APPENDIX A - SUPPORTING INFORMATION

Appendix A – Supporting Information

The following is a list of the documents that were submitted and reviewed, but were not limited to:

1. Letter Report, CB Supplies Ltd. “2017-06 BMEC Application VIPERT™ Potable Water Tubing CTS-OD, SDR-9, response to Follow-up Letter dated February 8, 2018”, dated February 16, 2018
2. Letter Report, Abraham Murra Consulting “Certification and Analysis Letter (Item 5, BMEC application), CB Supplies Ltd. – Potable Water PE-RT Tubing”, dated November 10, 2017
3. Test Report, Plastic Pipe Institute, “TR-4: HDB/HDS/SDB/PDB/MRS” dated 2/14/2018
4. Listing, NSF “NSF/ANSI 14: Plastics Piping System Components and Related Materials”, 4 pages
5. Test Report, ICC Evaluation Service, “ICC-ES Report: CB SUPPLIES LTD. CANPERT TUBING; VIPERT TUBING AND FITTINGS”, effective date October 2017, 3 pages
6. Listing, ULC “CEYDC.R25466: Nonmetallic Plumbing System Components Listed for Fire Resistance”, 1 page
7. Listing, ULC “BXUVC.J900: Fire-resistance Ratings”, 2 pages
8. Listing, ULC “BXUVC.M516: Fire-resistance Ratings”, 2 pages
9. Listing, ULC “BXUVC.W316: Fire-resistance Ratings”, 2 pages
10. Listing, ULC “BXUVC.W458: Fire-resistance Ratings”, 2 pages
11. Testing, Intertek, “Single Penetrations – Horizontal (Floor/Ceiling) Assembly, Project number G102848242”, dated February 15, 2017, 2 pages
12. Testing, Intertek, “Single Penetrations – Vertical (Wall) Assembly, Project number G102848242”, dated February 15, 2017, 2 pages
13. Testing, Intertek, “Single Penetrations Only – Horizontal (Floor/Ceiling) or Vertical (Wall) Assembly, Project number G102848242”, dated February 17, 2017, 2 pages
14. Listing, Intertek, “CB Supplies – PEX and PERT Pipes: SPEC ID: 29059”, dated June 29, 2017, 4 pages
15. Specification, CB Supplies Ltd., “TechData: VIPERT Potable Tubing”, Revision Date: August 23, 2017
16. Sample Forms, CB Supplies Ltd., “Submittal Sheet”, dated July 25, 2017, 2 pages
17. Manufacturer Literature, CB Supplies Ltd., “VIPERT Potable: Striking Performance”, undated, 2 pages
18. Manual, CB Supplies Ltd., “Installation Guidelines for CB Supplies VIPERT™”, revised August 15, 2017.
19. Approvals from other Jurisdictions and Authorities:
 - a. ICC Evaluation Service, dated May 17, 2017
 - b. CMMTQ, Quebec, “Composants: Sans Plomb” undated, one page
 - c. CMMTQ, Quebec, “Lead free” components” undated, one page
 - d. Plumbing Industry Advisory Council, Meeting #2, dated, February 28, 2017
20. Letter Report, Abraham Murra Consulting “BMEC Application #2017-06, Certification and Analysis Letter (Item 5, BMEC application) Submission of Additional Documents, CB Supplies Ltd. - VIPERT Potable Water Tubing”, dated January 21, 2018

21. Presentation, PowerPoint, "BMEC application 2017-06: VIPERT™ Potable Water Tubing CTS-OD, SDR-9", dated 1/22/2018
22. Test Report, Jana Laboratories, "Project 12-2353: Final Report: Initial Certification Testing: ASTM F2769-10", dated April 2, 2013
23. Test Report, NSF, "Job Name: J-00087965", 7 pages, report dated 23-June-2010
24. Test Report, NSF, "Project # 9083891: Final Report: Chlorine Resistance Testing of ½" PE-RT Pipe Sample" dated August 20, 2010
25. Test Report, NSF, "Project # 14-2607: Final Report: Chlorine Resistance Testing of ½" Red PE-RT Tubing" dated April 13, 2015
26. Test Report, NSF, "Project # 14-2608: Final Report: Chlorine Resistance Testing of ½" White PE-RT Tubing" dated April 13, 2015
27. Test Report, NSF, "Project # 14-2609: Final Report: Chlorine Resistance Testing of ½" Blue PE-RT Tubing" dated April 13, 2015
28. Test Report, NSF, "NSF/ANSI 61: CanPERT / ½" Blue PERT tubing", 10 pages, dated 14-May-2015
29. Test Report, NSF, "NSF/ANSI 61: CanPERT / ½" Red PERT tubing", 10 pages, dated 14-May-2015
30. Test Report, NSF, "CSA B137.18-2013 – NSF / ANSI 14: CanPERT / ½" PE-RT Tubing", 4 pages, dated 14-JUL-2015
31. Listing, NSF, "NSF/ANSI Standard 14 - Plastics Piping System Components and Related Materials", 2 pages, dated 11/24/2015
32. Listing and Letter, NSF, "NSF/ANSI Standard 14 - Plastics Piping System Components and Related Materials", 3 pages, dated 01/08/2018
33. Test Report, QAI Laboratories, "Engineering Evaluation Report: Report Number T1208-1", dated December 8, 2017
34. Chart Table, "CSA B137.5 vs CSA B137.18 Comparison", 3 pages, undated
35. Proposed Plumbing Code Changes, "Addition of Polyethylene of Raise Temperature (PE-RT) in the NPC", last modified 2017-10-31, 17 pages
36. Letter Report, CB Supplies Ltd. "2017-06 BMEC Application VIPERT™ Potable Water Tubing CTS-OD, SDR-9, Response to Request for Further Information Letter dated February 27, 2018", dated March 2, 2018
37. Standard Council of Canada, "Certification Body Accreditation Program (CBAP)", 6 pages, ASB_SOA_10025-NSF-Scopes_v9_2016-07-05
38. Presentation, PowerPoint, "Updates to the 2012 Building Code: Ministry of Municipal Affairs and Housing", 4 pages, dated February-9-15
39. Presentation, PowerPoint, "Updates to the 2012 Building Code: Ministry of Municipal Affairs and Housing", 8 pages, dated February-9-15
40. Letter with attachments, NSF, 9 pages, dated February 28, 2018