

**BUILDING MATERIALS EVALUATION COMMISSION  
(BMEC)  
AUTHORIZATION REPORT**

**DATE OF AUTHORIZATION  
BMEC REFERENCE  
BMEC APPLICATION**

**July 26, 2001  
BMEC # 01-10-262  
# A 2001-07**

**ROYAL GROUP TECHNOLOGIES LIMITED  
Vinyl Deck Railing System™**

**1. Applicant**

Royal Group Technologies Ltd  
1 Royal Gate Boulevard  
Woodbridge, Ontario  
L4L 8Z7

Tel: (905) 264-0698  
Fax: (905) 264-0699

**2. Manufacturing Facilities**

Prince Plastics Limited  
5770 Highway #7  
Woodbridge, Ontario  
L4L 3A2

**3. Description**

The Royal Vinyl Deck Railing System™ is composed of extruded PVC posts, rails and pickets. The posts and rails are PVC extrusions, reinforced with galvanized cold-formed steel. The posts are bolted to the existing deck substructure. The assembled railing section is fastened to the posts. The extruded components are available in white or tan.

**4. Authorization Requested**

The applicant sought authorization for the use of the Royal Vinyl Deck Railing System™, an innovative railing material for exterior applications, for surfaces that are not greater than 1 800 mm above the finished grade, as required by Sentence 9.8.8.2.(2) and as required by Article 9.8.8.8 "Construction of Guards" of the Ontario Building Code (OBC).

## 5. Assessment

Reports and assessments provided by the applicant show that if the Royal Vinyl Deck Railing System™ is designed, performance tested and maintained in accordance with the limitations the manufacturer's instructions and conditions stated in this authorization, the level of the performance required by Article 9.8.8.8 "Construction of Guards" of the OBC will be provided.

Reports and Assessments reviewed included the following:

1. Prince Plastics Limited: Quality Procedure Manual, "Section 10.0 Inspection and Testing."
2. Royal Plastics Inc.: "Technical Data Sheet, Royal 8007/8100 Compounds."
3. Prince Plastic Limited: "Quality Procedure Manual, Section 10.0 Inspection and Testing."
4. Prince Plastic Limited: "Quality Procedure Manual, Section 13.0 Control of Nonconforming Products."
5. Royal Outdoor Products: "Vinyl Deck Stair Railing Kit Assembly Instructions."
6. Royal Outdoor Products: "Vinyl Deck Railing Kit Assembly Instructions."
7. Ortech Corporation: Evaluation of the "Royal Deck" System.
8. Technical Background Information Memo relating to Royal Vinyl Deck Railing System™ dated 29 March 2001.
9. Bodycote Materials Testing Ortech Laboratories: Evaluation of Railing Systems. Report No. 99-06-M174.
10. BOCA International Evaluation Report: Research Report 96.64. Evaluation Subject: Brock Deck™ and Triple Crown Fence.

## 6. Authorization

The Royal Vinyl Deck Railing System™ is authorized for use as an exterior rail subject to the following terms and conditions:

**A. SPECIFIC TERMS AND CONDITIONS:**

1. This Authorization is valid only for the Royal Vinyl Deck Railing System™ and does not include the Royal Vinyl Deck System.
2. This authorization is valid only for Royal Vinyl Deck Railing System™ for buildings constructed under Part 9 of the Ontario Building Code.
3. The railing system shall not be used for surfaces that are greater than 1800 mm above the finished grade.
4. The railing system shall be attached to a deck structure as recommended by the manufacturer and shall be designed in conformance with Part 9 of the OBC.
5. The PVC incorporated in the railing system shall meet ASTM G26.

**B. General Conditions**

1. The use of the Royal Vinyl Deck Railing System™ shall comply with the *Building Code Act, 1992* as amended or re-enacted from time to time and except as specifically authorized herein, with the OBC as amended or remade from time to time.
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 named in Part 1 hereof shall promptly notify the BMEC of:
  - (a) the failure of the applicant, or of the material, system or building design that is the subject matter of this Authorization, to comply with any of the terms and conditions set out in 6. A. above; or
  - (b) the occurrence of any of the events described in Conditions 6. B. 4. (a) and (b) (ii) below.
4. The BMEC may amend or revoke this Authorization where it determines that:
  - (a) any change has been made to:

- (i) the material, system or building design that is the subject matter of this Authorization;
  - (ii) the address of the applicant specified in Part 1 of this Authorization; or,
  - (iii) the ownership of the applicant specified in Part 1 of this Authorization.
- (b) the use of the material, system or building design authorized herein;
- (i) does not comply with the *Building Code Act, 1992* or any relevant legislation as they may be amended or re-enacted from time to time; or
  - (ii) provides an unsatisfactory level of performance, in situ.
- (c) the Applicant, or the material, system or building design that is the subject matter of this Authorization, has failed to comply with any of the terms and conditions set out in this Authorization; or
- (d) any Ontario Building Code provision relevant to this Authorization has been amended or remade.

Dated at Toronto on this 26th day of July 2001

**BUILDING MATERIALS EVALUATION COMMISSION**

---

per: Rashmi Nathwani, Chairman