



**CONSTRUCTION SPECIFICATION FOR
EXTRUDED EXPANDED POLYSTYRENE FROST HEAVE TREATMENT**

TABLE OF CONTENTS

| | |
|---------------|--|
| 316.01 | SCOPE |
| 316.02 | REFERENCES |
| 316.03 | DEFINITIONS - Not Used |
| 316.04 | DESIGN AND SUBMISSION REQUIREMENTS - Not Used |
| 316.05 | MATERIALS |
| 316.06 | EQUIPMENT - Not Used |
| 316.07 | CONSTRUCTION |
| 316.08 | QUALITY ASSURANCE - Not Used |
| 316.09 | MEASUREMENT FOR PAYMENT |
| 316.10 | BASIS OF PAYMENT |

316.01 SCOPE

This specification covers the requirements for the installation of extruded expanded polystyrene insulation for frost heave treatment of pavements.

316.02 REFERENCES

This specification refers to the following standards, specifications, or publications:

Ontario Provincial Standard Specifications, Construction

| | |
|----------|--|
| OPSS 206 | Grading |
| OPSS 308 | Tack Coating and Joint Painting |
| OPSS 314 | Untreated Granular Subbase, Base, Surface, Shoulder, and Stockpiling |
| OPSS 501 | Compacting |

Ontario Provincial Standard Specifications, Material

OPSS 1010 Aggregates - Base, Subbase, Select Subgrade, and Backfill Material
OPSS 1605 Extruded Expanded Polystyrene Pavement Insulation

316.05 MATERIALS

316.05.01 Extruded Expanded Polystyrene

Extruded expanded polystyrene insulation shall be according to OPSS 1605 and supplied in sheets 600 x 2400 mm.

Grade and compressive strength of the extruded expanded polystyrene insulation shall be as specified in the Contract Documents.

316.05.02 Tack Coat

Tack coat shall be according to OPSS 308.

316.05.03 Granular

Granular base and subbase shall be according to OPSS 1010.

When Granular B is used as backfill, 100% of the material shall pass the 75 mm sieve.

316.07 CONSTRUCTION

316.07.01 General

The site shall be prepared and extruded expanded polystyrene insulation placed and covered with compacted granular material.

316.07.02 Site Preparation

316.07.02.01 Excavation

The excavation shall be carried out to the dimensions specified in the Contract Documents. The tolerance of the earth grade on which the extruded expanded polystyrene is to be placed shall be according to OPSS 206 and the surface shall not deviate by more than 10 mm at any place on a 3 m straight edge.

All protruding material such as cobbles, boulders, and roots exceeding 50 mm in any dimension shall be removed from the surface.

316.07.02.02 Pavement Surface

The pavement surface shall be cleaned of all earth, granular, and any other debris before tack coat is placed.

316.07.03 Placing Extruded Expanded Polystyrene

316.07.03.01 General

Extruded expanded polystyrene sheet treatment shall be placed and secured. The sheets shall be placed lengthwise and parallel to the centreline of the roadway to obtain butt joints and staggered transverse joints. The area to be treated and the insulation thickness shall be as specified in the Contract Documents.

316.07.03.02 Securing

Each sheet of extruded expanded polystyrene may be secured by placing sufficient granular material to ensure that no movement takes place during subsequent operations.

Alternatively, hardwood skewers 10 mm in diameter and 150 mm in length shall be used to secure the extruded expanded polystyrene to the prepared surfaces.

When extruded expanded polystyrene is placed directly on a pavement surface, tack coat shall be applied according to OPSS 308 to the existing pavement surfaces to provide a secure bond between the extruded expanded polystyrene and the pavement surface. The tack coat shall be applied at a rate of 0.35 kg/m². The extruded expanded polystyrene shall be placed while the tack coat is still tacky.

316.07.04 Granular Material

Granular base or subbase material shall be placed according to OPSS 314; except, the initial lift of granular material for protection of extruded expanded polystyrene from construction traffic shall be the depth specified in the Contract Documents placed in one lift by end dumping and spreading.

Vehicular traffic shall not be permitted on the extruded expanded polystyrene sections until the full depth of the entire granular base and subbase courses have been placed and compacted according to OPSS 501.

316.07.05 Management of Excess Material

Management of excess material shall be as specified in the Contract Documents.

316.09 MEASUREMENT FOR PAYMENT

316.09.01 Actual Measurement

316.09.01.01 Extruded Expanded Polystyrene Treatment

Measurement of extruded expanded polystyrene shall be by area in square metres.

316.09.02 Plan Quantity Measurement

When measurement is by Plan Quantity, such measurement shall be based on the units shown in the clauses under Actual Measurement.

316.10 BASIS OF PAYMENT

316.10.01 Extruded Expanded Polystyrene Treatment - Item

Payment at the Contract price for the above tender items shall be full compensation for all labour, Equipment, and Material to do the work.

316.10.02 Excavation

Payment for earth and rock excavation shall be according to OPSS 206.

316.10.03 Granular Base and Subbase

Payment for granular base and subbase material placed over the polystyrene shall be according to OPSS 314.

316.10.04 Tack Coat

Payment for tack coat shall be according to OPSS 308.