



**Note: The MUNI published in November 2021 replaces OPSS 1315 COMMON, November 2008 with no technical content changes.**

**MATERIAL SPECIFICATION FOR  
WHITE PIGMENTED CURING COMPOUNDS FOR CONCRETE**

---

**TABLE OF CONTENTS**

<b>1315.01</b>	<b>SCOPE</b>
<b>1315.02</b>	<b>REFERENCES</b>
<b>1315.03</b>	<b>DEFINITIONS - Not Used</b>
<b>1315.04</b>	<b>DESIGN AND SUBMISSION REQUIREMENTS</b>
<b>1315.05</b>	<b>MATERIALS</b>
<b>1315.06</b>	<b>EQUIPMENT - Not Used</b>
<b>1315.07</b>	<b>PRODUCTION</b>
<b>1315.08</b>	<b>QUALITY ASSURANCE</b>
<b>1315.09</b>	<b>OWNER PURCHASE OF MATERIALS - Not Used</b>
<b>1315.10</b>	<b>BASIS OF PAYMENT – Not Used</b>

**APPENDICES**

<b>1315-A</b>	<b>Commentary</b>
---------------	-------------------

<b>1315.01</b>	<b>SCOPE</b>
----------------	--------------

This specification covers membrane forming compounds for curing concrete.

**1315.01.01 Specification Significance and Use**

This specification is written as a municipal-oriented specification. Municipal-oriented specifications are developed to reflect the administration, testing, and payment policies, procedures, and practices of many municipalities in Ontario.

Use of this specification or any other specification shall be according to the Contract Documents.

## **1315.01.02 Appendices Significance and Use**

Appendices are not for use in provincial contracts as they are developed for municipal use, and then, only when invoked by the Owner.

Appendices are developed for the Owner's use only.

Inclusion of an appendix as part of the Contract Documents is solely at the discretion of the Owner. Appendices are not a mandatory part of this specification and only become part of the Contract Documents as the Owner invokes them.

Invoking a particular appendix does not obligate an Owner to use all available appendices. Only invoked appendices form part of the Contract Documents.

The decision to use any appendix is determined by an Owner after considering their contract requirements and their administrative, payment, and testing procedures, policies, and practices. Depending on these considerations, an Owner may not wish to invoke some or any of the available appendices.

## **1315.02 REFERENCES**

When the Contract Documents indicate that municipal-oriented specifications are to be used and there is a municipal-oriented specification of the same number as those listed below, references within this specification to an OPSS shall be deemed to mean OPSS.MUNI, unless use of a provincial-oriented specification is specified in the Contract Documents. When there is not a corresponding municipal-oriented specification, the references below shall be considered to be the OPSS listed, unless use of a provincial-oriented specification is specified in the Contract Documents.

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

### **Ontario Ministry of Transportation Publications**

Laboratory Testing Manual:

- LS-413 Method of Test for Non-Volatile Content of Chemical Admixtures, Latex Admixtures and Curing Compounds
- LS-416 Method of Test for Settling Rates-Curing Compounds

### **ASTM International**

- C 156-05 Standard Test Method for Water Retention by Liquid Membrane-Forming Curing Compounds for Concrete
- C 309-07 Specification for Liquid Membrane-Forming Compounds for Curing Concrete
- D 244-04 Standard Test Methods and Practices for Emulsified Asphalts

## **1315.04 DESIGN AND SUBMISSION REQUIREMENTS**

### **1315.04.01 Submission Requirements**

#### **1315.04.01.01 Product Data**

Use of this product shall not commence until acceptance of the product has been received in writing from the Owner.

The following product data shall be submitted to Owner for acceptance prior to its use.

- a) Trade name of the compound.
- b) Name of manufacturer and supplier.
- c) A test certificate, from an independent laboratory, containing test results for the tests performed on the designated compound required by this specification.
- d) Infrared spectra of the curing compound.
- e) A statement as to the type of solids, type of solvents, pigment content, total solids content, specific gravity and viscosity of the designated compound.
- f) Production tolerances for solids content and specific gravity.
- g) Manufacturer's Safety Data Sheet.

**1315.05 MATERIALS**

**1315.05.01 Requirements**

The curing compound shall be white pigmented Type 2 Class B curing compound according to ASTM C 309 and this specification.

**1315.07 PRODUCTION**

**1315.07.01 Quality Control**

The curing compound shall restrict the loss of water present in the test specimen at the time of application of the compound to not more than 300 g/m<sup>2</sup> of treated surface, when tested according to ASTM C 156.

The curing compound shall not react deleteriously with concrete.

The compound shall have a rate of settling that the uniformly white portion, as visible to the eye, is not less than 145 ml at 2 hours and not less than 125 ml at 24 hours after filling the cylinder, when tested according to LS-416.

The testing shall be performed by a laboratory certified by an organization accredited by the Standards Council of Canada or by a laboratory participating in the Cement and Concrete Reference Laboratory at the National Institute of Standards and Technology correlation and inspection programs. When the certified laboratory is the manufacturer's laboratory, an Engineer employed by an independent certified laboratory shall witness the testing and affix their Engineer's seal and stamp to the test report verifying in writing the testing was performed according to this specification.

**1315.08 QUALITY ASSURANCE**

**1315.08.01 Sampling**

The Contractor shall supply a 1 litre sample of the curing compound to the Contract Administrator when requested. Samples shall be taken in the presence of the Contract Administrator.

The Contractor shall supply the sample containers. The containers shall be sufficiently strong and securely fastened.

All containers used for samples of materials controlled under WHMIS shall be appropriate for the materials being shipped and shall be labelled and accompanied with the relevant Material Safety Data Sheets.

Sample containers shall be triple-tight, leak-proof cans or pails that are inert to the material being sampled or suitable plastic containers of similar capacity that can be closed to prevent any leakage.

When labelling and identification requirements are not specified in the Contract Documents, the following minimum sample identification shall accompany the sample. Steps shall be taken to ensure the samples and the sample identification are not separated during transporting.

- a) Contract number.
- b) Name of Contractor and a contact person's name and telephone and fax numbers.
- c) Contract Administrator's name and telephone and fax numbers.
- d) Quantity and type of sample. When a sample consists of more than one item, each item shall be individually identified.
- e) Date sampled (i.e., yyyy-mm-dd).
- f) Date shipped (i.e., yyyy-mm-dd).
- g) Sample location.

#### **1315.08.02                      Physical Tests**

Testing for the non-volatile content shall be according to LS-413.

Testing for relative density shall be according to ASTM D 244.

Test for settling rate shall be according to LS-416.

#### **1315.08.03                      Acceptance or Rejection**

The material properties shall be according to the product data information submitted to the Owner at the time of the initial evaluation.

The non-volatile content shall be within  $\pm 2.5\%$  of the approved curing compound.

The relative density shall be within  $\pm 0.01$  of the approved curing compound.

The rate of settlement shall be not less than 145 ml at 2 hours and not less than 125 ml at 24 hours.

Material represented by a quality assurance sample failing to meet the requirements of this specification shall be rejected.

**Appendix 1315-A, November 2021  
FOR USE WHILE DESIGNING MUNICIPAL CONTRACTS**

**Note:** This is a non-mandatory Commentary Appendix intended to provide information to a designer, during the design stage of a contract, on the use of the OPS specification in a municipal contract. This appendix does not form part of the standard specification. Actions and considerations discussed in this appendix are for information purposes only and do not supersede an Owner's design decisions and methodology.

**Designer Action/Considerations**

The designer should ensure that the General Conditions of Contract and the 100 Series General Specifications are included in the Contract Documents.

**Related Ontario Provincial Standard Drawings**

No information provided here.