



Ontario's Organized Concrete Finishing Industry

# FINISHING NEWS

## Ontario joins the National Red-Seal Program !

### Industry Calendar:

- ACI Convention:  
Oct 23-27, 2016  
Philadelphia, PA
- Construct Canada:  
Nov 30 - Dec 2, 2016  
Toronto, ON
- World of Concrete:  
Jan 17 - 20, 2017  
Las Vegas, NV

The Ontario College of Trades (OCOT) has recently announced that Ontario has joined the national Red Seal trade program for Concrete Finishers ! Ontario joins British Columbia, Alberta, Manitoba, Quebec, PEI, New Brunswick, Nova Scotia and Newfoundland in this inter-provincial certification program.

The Red Seal Program was founded in 1952 as the standard of excellence for skilled trades in Canada. Tradespersons who choose to write the Red Seal examination will receive a Red Seal endorsement on their provincial trade certificate.

In addition to having certified knowledge, Red-Seal journeymen obtain enhanced inter-provincial mobility.

Existing Journeymen Concrete Finishers who wish to obtain a provincial Certificate of

Qualification before Red Seal examinations come into force should go through the [Ontario College of Trades](#) as soon as possible.



*Do you have any questions or suggestions—send us a note at [news@cflra.ca](mailto:news@cflra.ca)*

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## New carbon monoxide (CO) regulations July 1<sup>st</sup>

Workers in Ontario have become seriously ill and have even died from carbon monoxide exposure. Starting July 1st, new requirements for controlling exposure to Carbon Monoxide (CO) on construction projects will come in to force in Ontario. These new requirements require carbon monoxide to be measured on jobsites to provide improved healthy and safety.

Ontario Regulation 833 states a Time Weighted Average Limit (TWA) of 25 parts per million (ppm) for an 8 hour work shift. Additionally exposure to CO shall not exceed:

- 75 ppm for any period of 30 minutes, and
- 125 ppm at any time.

Our IHSA Concrete Floor Labour-Management Health and Safety Committee recommends that alarms for your CO monitor be set to the following levels:

- Low Alarm = 25ppm (for an 8-hour work shift) or 17.5ppm (for a 10-hour work shift)
- High Alarm = 75ppm

Action is required whenever an alarm is activated. The type of action depends on the alarm that is activated.

Low Alarm (25ppm or 17.5ppm):

1. Turn off all unneeded fuel-powered equipment and tools.
2. Increase fresh air supply.
3. Use fans to exhaust CO outside.

High Alarm (75ppm):

1. Turn off ALL fuel-powered equipment.
2. Increase fresh air ventilation as above.
3. Limit the number of workers in the work area.
4. Notify your supervisor.

This regulation is new, so we are going to be learning as we go forward. It is important to remember that efforts to manage Carbon Monoxide needs to be supported by everyone – we all must play a role for improved health and safety !

**Keep CO under 25 ppm for an 8 hour work day !**

**Do not work in areas above 125ppm**

## Hot weather and “plastic shrinkage”

Hot temperature causes concrete to set faster so we need to be ready as the summer heats up ! CSA A23.1 states that hot weather protection is required any time that the air temperature exceeds 26°C (80°F or higher).

In hot & windy weather, the surface of the fresh concrete can dry pre-maturely. This drying causes shrinkage of the plastic concrete surface before it sets.

Extreme drying can cause “surface crusting” where the concrete surface appears dry and stiff enough to

walk on & finish, but where the underlying concrete has not set (like a jelly sandwich). This premature surface drying can confuse inexperienced Concrete Finishers who might think the surface is ready to finish when it has simply dried out.

Any time that the evaporation rate exceeds the bleed water rate, the surface will dry and shrink.

Plastic shrinkage cracks are commonly observed with premature surface drying as well. These are short parallel cracks that form after passes of the finishing equipment.

Plastic shrinkage can also be seen at the bending points of imprinted concrete textures too.

To avoid this condition, we need to protect the plastic concrete surface from rapid evaporation. Concrete Finishers must choose between fog spraying/misting with water OR evaporation reducing liquid films (see below).

Always check what type of cementing materials are being used as each type of concrete requires a different level of protection.

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## Evaporation Reducing Liquid Spray-On Films

All concrete surfaces can dry prematurely from evaporation. Depending on the cement type and quantity, concrete surfaces can dry faster than others.

In order to protect the moisture content of the cement paste, the surface may require fog spraying/water misting OR an Evaporation Reducing liquid spray-on film. Other solutions such as wind-breaks have largely been found to be impractical on large or suspended concrete placements.

Fog Spraying or fine water misting provides temporary protection against evaporation. Evaporation reducing films however can provide longer lasting protecting against surface moisture evaporation. Spray-on liquid evaporation reducing films can be very effective to protect the concrete between finishing operations.

Evaporation Reducer’s are water based products, commonly mixed at a ratio of 9 parts water to 1 part evaporation reducer (remember to shake before use every time). Average application rates are 5-10m<sup>2</sup> per Litre of

mixed product (varies depending upon surface texture). When applied correctly you will see a water sheen on top of the surface. Always refer to material suppliers application instructions and Safety Data Sheets.

A full coat should be applied immediately after bull-floating. In windy conditions, you may need to re-apply the evaporation reducer as well. DO NOT immediately float or trowel over the evaporation reducer. The evaporation reducer is meant to sit on the surface of the concrete undisturbed. If you need to mist spray for finishing, then it should be done with water and not evaporation reducers.

Internet links to Evaporation Reducing materials:

- [EVAPRE](#) by W. R. Meadows of Canada
- [EUCOBAR](#) by Euclid Chemical Company
- [SIKA FILM](#) by Sika

*“If the surface is dry, then it’s time to apply”*

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## The importance of the water to cement ratio (w/c)

The water-to-cement ratio (w/c) is a critical consideration for concrete materials as it relates to the hardened performance of the concrete materials.

Higher w/c ratios (>0.6) have lower performance characteristics such as higher moisture permeability, lower wear resistance, more drying shrinkage and longer drying time for applied finishes. Low w/c ratio mixes (<0.5) have higher cement contents

that may require plastic protection.

The Canadian concrete standard CSA A23.1 requires a maximum 0.55 w/c ratio for all interior concrete floors with a steel trowel finish (class: “N-CF”). In general terms, a 0.55 water/cement ratio should have an adequate amount of cement paste to produce a good quality concrete floor surface that is durable and sustainable.

Plasticizing admixtures are also

needed with good quality concrete to ensure adequate workability, enhanced quality & sustainability.

### CSA Common w/c ratios:

Class & use:	w/c:
C1: Suspended garage slabs:	0.4
C2: Sidewalks:	0.45
F1: Pool decks:	0.5
N-CF: Interior floors:	0.55



# Historical Photos



## [Watch out for heat illness & prepare for hot temperatures !](#)

Watch for symptoms of heat illness, which include:

- dizziness or fainting;
- nausea or vomiting;
- headache;
- rapid breathing and heartbeat;
- extreme thirst (dry mouth or sticky saliva);
- stopped sweating; and
- decreased urination with unusually dark yellow urine.

If you experience any of these symptoms during hot weather, **immediately** move to a cool place and drink liquids.

The effects of heat illness can be fatal if left untreated—one construction worker died from heat stress in 2015. In hot weather its extremely important to remember to drink water. In periods of extreme heat it is recommended that you drink up to 4 cups of water every hour. Don't forget to make sure that everyone else is staying hydrated as well (we need to look out for each other too).

### Heat stroke is a medical emergency!

Call 911 or your local emergency number immediately if you are caring for a someone, such as a co-worker, who has a high body temperature and is either unconscious, confused and/or overly dehydrated.



While waiting for help - **cool the person right away by:**

- moving them to a cool place (if you can) or shade them from the sun;
- applying cold water to large areas of the skin or clothing; and
- fan the person.

In any emergency situation, it is important to remember to stay calm and get help ASAP.

## Other news

- Congratulations to LIUNA 506 Class of 2016 on completing their Level 1 in-school skills & knowledge training ! All Concrete Finisher journeymen are encouraged to assist these apprentices with their skills.
- STOP ENGINE IDLING—reduce greenhouse gas emissions by turning off equipment when not in use !
- Make sure to ask if there are any buried services before hammering form pins into granular bases !
- Some firms have reported airborne dust when Soff-cutting. Please check that original parts and blades are being used and if the concrete mix is type “N-CF” or not (maximum 0.55 w/c).
- The Ontario Ministry of Labour is now managing the operation of the Ontario College of Trades.
- *Always remember: if you can't do it safely, then ask for help !*

## Industry Phone & Web Directory

<a href="#">Ministry of Labour (Ontario):</a>	... 1-877-202-0008
<a href="#">Labourer's Union Provincial Council:</a>	..... 289-291-3678
<a href="#">Operative Plasterers &amp; Cement Mason's 598:</a>	..... 905-856-9000
<a href="#">BACU Cement Masons</a>	... 416-239-7374
<a href="#">Cement Finishing Labour Relations Association:</a>	..... 289-837-1627
<a href="#">Tile &amp; Terrazzo Guild Ontario:</a>	... 905-660-5094
<a href="#">Infrastructure Health &amp; Safety Association:</a>	..... 905-625-0100
<a href="#">Ontario College of Trades:</a>	... 1-855-299-0028
<a href="#">Ontario Formwork Association:</a>	.... 905-856-4747
<a href="#">Concrete Floor Contractors Association:</a>	..... 905-582-9825
<a href="#">Concrete Ontario:</a>	... 905-507-1122

[Visit us online at www.cflra.ca !](http://www.cflra.ca)

The screenshot shows the CFLRA website homepage. At the top, there is a navigation menu with links for Home, News, Labour Relations, Safety, Training, Contractor Directory, and Contact. Below the menu is a welcome message: "Welcome to the home of professional cement finishing!". The main content area features a paragraph about CFLRA's role as a designated association of trade contractor employees, its membership with the Labourer's (PEBAL) and Cement Masons (CMEBA) bargaining agencies, and its commitment to providing fair wages, benefits, and training. There is also a small image of a yellow hard hat. At the bottom, there is a footer with the slogan "UNIONIZED CONSTRUCTION WORKERS" and the text "Your Trade • Your Industry • Your voice" and "Concrete Finishing • Epoxy Urethane Flooring • Concrete Polishing • Concrete Restoration Since 1971".