

Specification Bulletin

Polished Concrete

Gloss & Aggregate Exposure



The Concrete Floor Contractors Association of Canada represents the concrete finishing industry.

Technical Bulletins are designed to provide state of the art information to owners, specifiers and contractors to both improve quality and reduce problems.

We hope that this information will assist you in this goal.

If you have any questions, or comments, please feel free to contact us at 905-582-9825 or by e-mail at info@concretefloors.ca

The Best Floors Start With Our Finish !



Concrete
Floor
Contractors
Association

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Background:

Polished Concrete is a sustainable exposed concrete surface finish obtained through intensive diamond grinding incorporating a densifying liquid hardener. During the polishing process, cement paste is removed from the surface of the concrete which may expose underlying concrete fine and coarse aggregates. In some cases specifiers may desire to only obtain a suitable gloss without reference to any particular aggregate exposure, and in other cases specifiers may desire to expose the concrete fine or coarse aggregates.

The purpose of this Technical Bulletin is to provide specifiers with standardized terminology to minimize differences in expectations.

Aggregate Exposure Classifications:

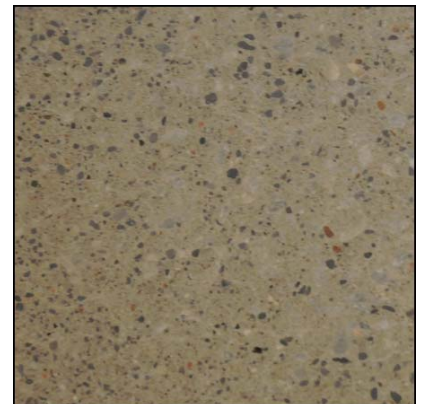
"A" (eg: "Standard" – no specified classification requirement): No intentional effort to produce any aggregate exposure other than what may become naturally exposed while producing the specified gloss level (concrete fine and coarse aggregates may become exposed depending upon surface flatness and other factors).

"B" (eg: "Fine Aggregate" exposure): The intentional exposure of concrete fine aggregates resulting from grinding away the surface finish to expose fine sand aggregates (concrete coarse aggregates may also become exposed depending upon surface flatness and other factors).

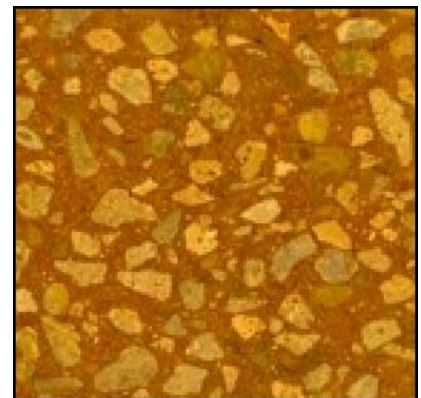
"C" (eg: Deep ground polished concrete): The intentional exposure of concrete coarse aggregates resulting from deep grinding of specialty constructed concrete floors utilizing special concrete mixes and methods of construction.



Class "A"
(on plain concrete)



Class "B"
(on acid stained concrete)



Class "C"
(on integrally
coloured concrete)

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The concrete floor industry classifies “gloss” in the following standard terms:

- Level 1:** “Flat” low-gloss finish
- Level 2:** “Semi-gloss” finish
- Level 3:** “High-gloss” finish

Example Specifications:

- A semi-gloss Standard polished finish would be specified as: “Level 2” or “Level 2 Class A”
- A high-gloss fine aggregate exposure finish would be specified as: “Level 3 Class B”
- A high-gloss deep ground & polished finish would be specified as: “Level 3 Class C”

Related Information:

The construction of concrete floors requires careful planning and execution. Owners representatives should specify the need for a [Pre-Construction Meeting](#) to avoid problems. In order to promote high quality results, all work shall be performed by a member of the Concrete Floor Contractors Association.

Owners representatives should specify the construction of mock-up samples to be approved in pre-construction planning.

More uniform aggregate exposure for Class B may be obtained through the application of a 5 kg/m² dry-shake surface hardener at the time of slab casting. Note: pigmented dry shake hardeners should be applied at a coverage rate of 7 kgs/m² to obtain colour uniformity).

The CFCFA recommends that the work of concrete polishing be included as a part of the concrete floor scope of work to avoid problems resulting from divisions of responsibility.

Further References:

- Polished Concrete System Manufacturer’s recommendations.



Level 1 Flat Gloss
(on plain concrete)



Level 2 Semi-gloss
(on light reflective
surface hardener)



Level 3 High-gloss
(on integrally
coloured concrete)