

FORBO MARMOLEUM COMPLIANCE WITH CSA Z8000

CSA Z8000 – Canadian health care facilities standard provides requirements and guidance for the planning, design, and construction of Canadian health care facilities. The design process for the Healthcare Facility (HCF) shall include activities to achieve specific objectives related to the core (OASIS) principles. The OASIS principles (i.e., operations, accessibility, safety and security, infection prevention and control, and sustainability). These principles are intended to support an objective-based approach to all planning and design activities allowing the HCF design to enhance the satisfaction of patients, families, visitors and staff.

The use of Forbo Marmoleum® products can help design and facilities achieve the CSA Z8000 guidance's and objectives of the OASIS principle.

• = CSA Z8000 Guidance

✓ = Marmoleum® Compliance

• **The HCF shall be designed and constructed to minimize the potential for acquisition and transmission of infections in the health care setting. "See CAN/CSA-Z317.13 for requirements and guidance regarding the selection of materials and infection prevention measures during construction, renovation, or additions to HCFs."**

✓ Marmoleum® meets the requirements of Section 5.1.1 – "Construction materials used in health care facilities should be selected for their ability to resist or prevent the growth and spread of micro-organisms, especially in areas where high-risk patients will be accommodated or treated."

✓ Marmoleum's® ability to inhibit the growth of bacteria stems from its natural raw material content. These natural inherent properties halt the breeding of many micro-organisms. Marmoleum® is very effective against gram-negative and gram-positive contact agents such as bacterium, mold, yeast spores, specifically, pathogens such as MRSA, C-Diff, CRE*. Marmoleum® is also effective against the growth of the Aspergillus Niger mold, using the ATC-100 test method*.

✓ Working with Canadian Hospitals and their Infection Prevention and Control departments, it is understood that items listed in Section 5.1.2 are for exposed elements in the case of natural fiber products and items like paper and paper-faced materials such as gypsum wallboards. Just as with the painting of drywall protects the paper facing of the drywall from moisture, the installation of Marmoleum® into wet adhesive also protects the jute or polyester backing from exposure to moisture. Marmoleum's® backing, is embedded into the linoleum cement structure, and is installed into wet adhesive, further encapsulating and protecting the backing from any moisture infiltration. The manufacturing process and the installation system used for Marmoleum® achieves a hygienic water tight flooring with or without heat-welding.



References to CSA Z8000 and CSA 317.13 address the most recent versions of these standards.

- Floors shall be durable, easily cleanable, and resistant to damage by water and chemicals. “They shall be easy to maintain and repair without generating toxic fumes, in order to minimize downtime of rooms.”
- ✓ Due to its 100% bio-based ingredients, Marmoleum® becomes more durable over time. Marmoleum® features a 30-year System Service Life and warranty.
- ✓ Marmoleum® features Topshield pro - Forbo’s high performance factory applied matte-finish. Topshield pro is a UV cured, double layer technology delivers extraordinary performance with superior appearance retention in high traffic healthcare environments. Marmoleum® with Topshield pro requires no initial maintenance or polymer application and can easily be maintained in a low chemical method. Topshield pro also has superior stain resistance to Betadine which is commonly used as a topical antiseptic in surgeries. This means that at the time of substantial completion, cleaning with a neutral pH cleaning solution is all that is necessary. The surface can be repaired or refreshed in cases of accidents or after years of intensive use.
- ✓ Marmoleum® with TopShield pro delivers long-lasting appearance retention and provides the lowest cost of ownership flooring solution over its system service life. Marmoleum® is engineered to withstand heavy foot traffic areas, is compatible with common disinfectants used in healthcare, and has superior scuff and scratch resistance, coupled with the ability to repair the surface if damage occurs. Marmoleum® contributes to a healthy indoor environment.
- ✓ Marmoleum® sheet and tile can be installed using Forbo’s proprietary Ez-On™ installation system allowing for immediate occupancy within hours of installation minimizing costly operational interruption.



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- **Floor surfaces are key to personal mobility of a type that does not create “drag” or “resistance” for patients using walking aids and wheelchairs. Floor materials shall be selected to provide the necessary stability and traction for the expected foot traffic and wheeled traffic. “The use of slip-resistant surfaces (i.e., coefficient of friction) is above 0.5”.**
- ✓ Marmoleum® provides the necessary stability and traction for comfortable foot traffic. It also offers ease of mobility and low resistance to wheeled traffic for patients and staff, while helping to reduce pains and strains related to pushing and pulling when compared to other flooring types.
- ✓ For areas requiring additional Comfort Marmoleum® Sheet is available in 2.5 mm sheet laminated onto a 1 mm layer of polyolefin foam.

- Floors in clinical and support service areas, and in areas subject to moisture, shall be monolithic (i.e., a single surface, or with heat-welded or sealed seams) with an integral coved base; installed with minimal seams and creases that could harbor bacteria; the integral coved base shall be tightly sealed against the wall and constructed without gaps.
- ✓ In the most recent edition of the CSA Z8000, Canadian health care facilities identifies Linoleum sheet flooring as a monolithic floor surface.
- ✓ ArmorCove™ is a fully integrated coving system that is comprised of a 1-piece aluminum coveformer, full vertical backing and cap, with Marmoleum® as the finished surface. It is puncture-proof, water resistant.
- ✓ The manufacturing process and the installation system used for Marmoleum® achieve a hygienic water tight flooring with or without heat-welding. Seams in Marmoleum® sheet can also be cold-welded using Forbo Ez-Weld™.
- Floors should be of a matte or honed finish to limit glare.
- ✓ Marmoleum® features Topshield pro - Forbo's high performance factory applied matte-finish. Its UV-cured double layer technology delivers extraordinary performance and clear, vibrant colors that retain their appearance over time.
- Environmentally sustainable strategies and innovative technology should be adopted to attain high performance over the building lifetime. A comfortable and healthy indoor environment; and minimum impact on the environment by means of emitting less pollutants and greenhouse gases.
- ✓ Marmoleum® Sheet is a CO2 neutral product which does not affect worldwide climate change. It combines ecological values with contemporary design and is an important contribution to a sustainable world.
- ✓ Tested and determined compliant in accordance with California Department of Public Health (CDPH) Standard Method v1.1-2010
- ✓ Meet Health Care Without Harm's "Healthy Flooring" criteria.
- ✓ ILFI Declare Red list Free
- ✓ 100% USDA Certified Bio Based Product
- ✓ Environmental Product Declarations - which include Eco and Human Toxicity Impact Categories
- ✓ Health Product Declaration

Marmoleum® is a high quality, natural floor, known for its durability, longevity, ease of cleaning and innovative design. Made from natural raw materials, Marmoleum® is the first CO2 neutral resilient floorcovering in the world done with out the use of offset schemes. Marmoleum® is the clear choice for creating healthy healthcare environments in Canada and worldwide.

* Marmoleum® is a supplement to and not a substitute for standard infection control practices and has been shown to reduce microbial contamination*, but do not necessarily prevent cross contamination or infections; users must continue to follow all current infection control practices. *Based on Independent Laboratory Testing. Testing results are available upon request



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