

CCMC 13092-R

CCMC Canadian code compliance evaluation

CCMC number:	13092-R
Status:	Active
Issue date:	2002-11-01
Modified date:	2023-11-08
Evaluation holder:	<p>Soleno Textiles Techniques Inc. & Acoustitech Inc. 1261, rue Berlier Laval QC H7L 3Z1 Canada Website: www.solenotextile.com Telephone: 450-668-2545</p>
Product names:	<ul style="list-style-type: none"> • Céramitech • Tech 3500 • Tech 5000 • Tech 7000
Compliance:	NBC 2015, OBC
Criteria:	CCMC-TG-061629.01-15, "CCMC Technical Guide for Plastic Fiber Mat Underlay"

In most jurisdictions this document is sufficient evidence for approval by Canadian authorities.

[Learn more about CCMC recognition](#) [Look for the trusted CCMC mark on products to verify compliance.](#)

Compliance opinion

It is the opinion of the Canadian Construction Materials Centre that the evaluated products, when used as an acoustical underlay in accordance with the conditions and limitations stated in this evaluation, comply with the following code:

National Building Code of Canada 2015

Code provision	Solution type
9.11.1. Protection from Airborne Noise	<u>Acceptable</u>

Ontario Building Code

Ruling No. 04-17-121 (13092-R) authorizing the use of this product in Ontario, subject to the terms and conditions contained in the Ruling, was made by the Minister of Municipal Affairs and Housing on 2004-10-15 (revised 2017-08-21) pursuant to s.29 of the Building Code Act, 1992 (see Ruling for terms and conditions). This Ruling is subject to periodic revisions and updates.

The above opinion(s) is/are based on the evaluation by the CCMC of technical evidence provided by the evaluation holder, and is bound by the stated conditions and limitations. For the benefit of the user, a summary of the technical information that forms the basis of this evaluation has been included.

Product information

Product names

- Céramitech
- Tech 3500
- Tech 5000
- Tech 7000

Product description

The products are underlays made from select non-woven, needle-punched polypropylene and polyester fibres with polyethylene.

The products are available in rolls that are 3 mm, 3.5 mm, 5 mm or 7 mm thick, between 11.6 m and 13 m long, and between 800 mm and 1 070 mm wide.

Manufacturing plant

This evaluation is valid only for products produced at the following plant:

Product names	Manufacturing plant
	Laval, QC, CA
Céramitech	☉
Tech 3500	☉
Tech 5000	☉
Tech 7000	☉

☉ Indicates that the product from this manufacturing facility has been evaluated by the CCMC

Conditions and limitations

The CCMC's compliance opinion is bound by this product being used in accordance with the conditions and limitations set out below.

- The products underwent Field Sound Transmission Class (FSTC) sound testing, which does not account for flanking transmission. As such, adjoining construction must conform to Article 9.11.1.4., Adjoining Constructions, of Division B of the NBC 2015.
- A fire-resistance rating must be established for the floor assembly where required by Article 9.10.9.4, Floor Assemblies, of the NBC 2015.
- The products are to be used over concrete or wood subfloors.
- The products must be glued to the subfloor.
- The products must be installed in accordance with the requirements of the Installation Guides published by Soleno Textiles Techniques Inc., dated October 2012.
- The products must be stored for 48 hours in the location where they will be installed before being fastened to the subfloor.
- Finish flooring, such as ceramic tile and hardwood floors, may be installed over the Céramitech product as per the Installation Guide published by Soleno Textiles Techniques Inc.
- The products' joints must be sealed with adhesive tape.
- Each roll must have a legible label or stamp with the following information:
 - manufacture's identification, and
 - the phrase "CCMC 13092-R"

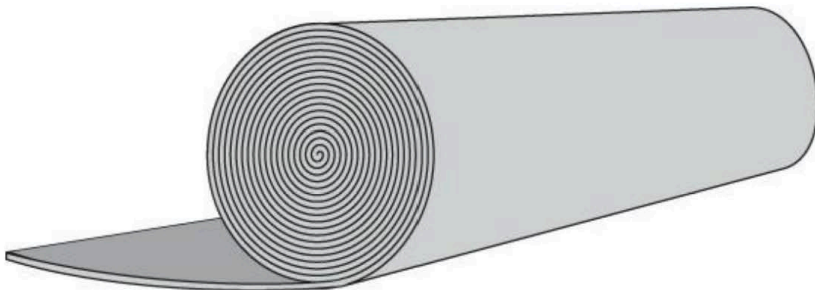


Figure 1. Tech 3500, Tech 5000, Tech 7000 and Céramitech

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Technical information

This evaluation is based on demonstrated conformance with the following criteria:

Criteria number	Criteria name
CCMC-TG-061629.01-15	CCMC Technical Guide for Plastic Fiber Mat Underlay

The evaluation holder has submitted technical documentation for the CCMC's evaluation. Testing was conducted at laboratories recognized by the CCMC. The corresponding technical evidence for this product is summarized below.

Material requirements

Table 1. Results of testing the physical properties of the products

Property	Unit	Result – Tech 3500	Result – Tech 5000	Result – Tech 7000	Result – Céramitech
Thickness	mm	3.5 ± 0.2	5.0 ± 0.2	7.0 ± 0.2	3.0 ± 0.2
Length	mm	17 300 ± 6.0	17 280 ± 6.0	17 300 ± 6.0	13 000 ± 6.0
Width	mm	1 630 ± 3.0	1 648 ± 3.0	1 630 ± 3.0	1 070 ± 3.0
Base weight	g/m ²	378.1	536.3	1 056	434.4
Tear strength (machine direction)	N	536.6	892.8	1 853	577.7
Tear strength (cross-machine direction)	N	765.1	1 261	2 528	656.1

Performance requirements

Acoustical performance

For the acoustical tests the products were installed in floor/ceiling assemblies. The field sound transmission class (FSTC) was established in accordance with ASTM E 413-87, "Classification for Rating Sound Insulation," based on testing in accordance with ASTM E 336-90, "Standard Test Method for Measurement of Airborne Sound Attenuation between Rooms in Buildings."

The test values are only for the complete systems tested. No acoustical rating for the underlay mat itself is provided in this evaluation.

In addition, the manufacturer submitted floor/ceiling assemblies for optional testing to establish the field impact insulation class (FIIC). The FIIC was established in accordance with ASTM E 989-890, "Standard Classification for Determination of Impact Insulation Class (IIC)," based on testing in accordance with ASTM E 1007-90, "Standard Test Method for Field Measurement of Tapping Machine Impact Sound Transmission Through Floor-Ceiling Assemblies and Associated Support Structures."

Table 2. Results of testing acoustical performance of the products

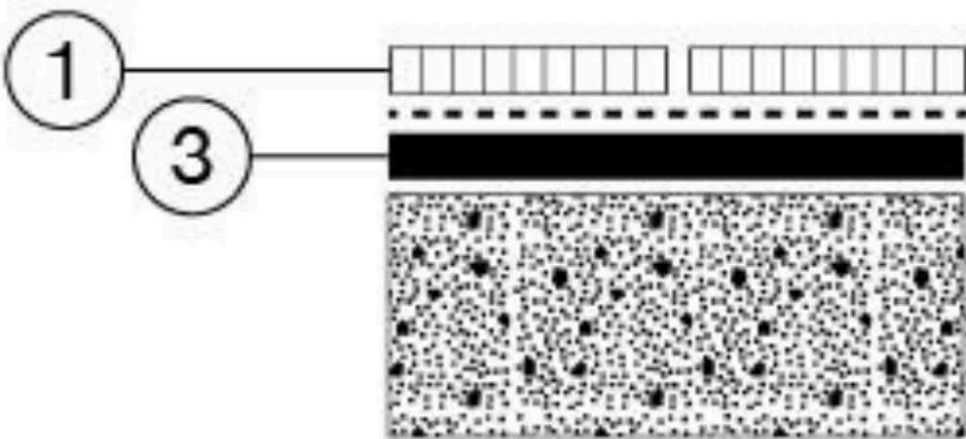
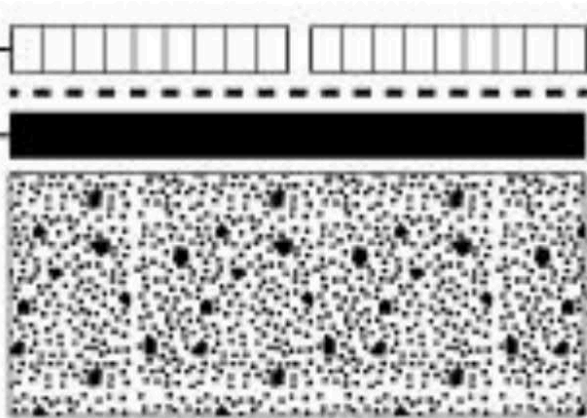
	Elements in the assembly	FSTC	FIIC	Cross-section of the assembly	
				Diagram	Image
Ceramic tiles	<ol style="list-style-type: none"> 1. ceramic tiles 2. bed of mortar 3. Céramitech 4. 203 mm concrete slab 	58	56		

Figure 2. A cross-section view of the ceramic tiles assembly

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	Elements in the assembly	FSTC	FIC	Cross-section of the assembly
Ceramic tiles	<ol style="list-style-type: none"> 1. ceramic tiles 2. 9.5 mm plywood 3. 12.7 mm plywood 4. Céramitech 5. 38.1 mm concrete topping 6. 20.3 mm waferboard 7. 330 mm Open Joist 2000™ wood truss, 406 mm o.c. 8. 152 mm blown-in cellulose 9. 13 mm resilient metal channels, 610 mm o.c., installed perpendicular to trusses 10. 15.9 mm Type X gypsum board 	59	60	

Figure 3. A cross-section view of the ceramic tiles assembly

	Elements in the assembly	FSTC	FIC	Cross-section of the assembly
Wood floor assembly	<ol style="list-style-type: none"> 1. wood flooring 2. AD-316 adhesive 3. Tech 3500 membrane 4. AD-316 adhesive 5. 38.1 mm concrete topping 6. insulating fibreboard 7. 15.9 mm plywood 8. 50 mm x 254 mm I-joists 9. glass fibre insulation 10. 13 mm resilient metal channels, 406 mm o.c. 11. two 15.9 mm Type X gypsum boards 	58	59	
Wood floor assembly	<ol style="list-style-type: none"> 1. wood flooring 2. AD-316 adhesive 3. Tech 3500 membrane 4. AD-316 adhesive 5. 203.2 mm concrete slab 	58	58	

Figure 4. A cross-section view of the wood floor assembly

Figure 5. A cross-section view of the wood floor assembly

	Elements in the assembly	FSTC	FIC	Cross-section of the assembly
Wood floor assembly	<ol style="list-style-type: none"> 1. wood flooring 2. AD-316 adhesive 3. Tech 5000 membrane 4. AD-316 adhesive 5. 203.2 mm concrete slab 	56	59	<p>Figure 6. A cross-section view of the wood floor assembly</p>
Wood floor assembly	<ol style="list-style-type: none"> 1. wood flooring 2. 15.9 mm × 89 mm wood ledger strips 3. Tech 5000 membrane 4. 38.1 mm concrete topping 5. insulating fibreboard 6. 15.9 mm plywood 7. 50 mm × 254 mm I-joists 8. glass fibre insulation 9. 13 mm resilient metal channels, 406 mm o.c. 10. two 15.9 mm Type X gypsum boards 	59	60	<p>Figure 7. A cross-section view of the wood floor assembly</p>

	Elements in the assembly	FSTC	FIC	Cross-section of the assembly
Wood floor assembly	<ol style="list-style-type: none"> 1. wood flooring 2. AD-316 adhesive 3. Tech 7000 membrane 4. AD-316 adhesive 5. 203.2 mm concrete slab 	56	60	<p>Figure 8. A cross-section view of the wood floor assembly</p>

Wood floor assembly	<ol style="list-style-type: none"> 1. wood flooring 2. 15.9 mm × 89 mm wood ledger strips 3. Tech 7000 membrane 4. 38.1 mm concrete topping 5. insulating fibreboard 6. 15.9 mm plywood 7. 50 mm × 254 mm I-joists 8. glass fibre insulation 9. 13 mm resilient metal channels, 406 mm o.c. 10. two 15.9 mm Type X gypsum boards 	59	62	<p>Figure 9. A cross-section view of the wood floor assembly</p>
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Table 3. Results of testing Céramitech to ASTM C 627, "Standard Test Method for Evaluating Ceramic Floor Tile Installation Systems Using the Robinson-Type Floor Tester"

Elements in assembly	Result
<ul style="list-style-type: none"> • polymer-modified hydraulic tile grout • 300 mm × 300 mm × 8.1 mm ceramic tiles • top adhesive • Céramitech • bottom adhesive • 51 mm concrete slab made of pre-mix concrete 	<p style="text-align: center;">No damage: first 5 cycles</p> <p style="text-align: center;">System breakdown: 7th cycle</p>

Céramitech can be used in residential and light duty commercial applications.

Administrative information

Use of Canadian Construction Materials Centre (CCMC) assessments

This assessment must be read in the context of the entire [CCMC Registry of Product Assessments](#), any applicable building code or by-law requirements, and/or any other regulatory requirements (for example, the [Canada Consumer Product Safety Act](#), the [Canadian Environmental Protection Act](#), etc.).

It is the responsibility of the user to confirm that the assessment they are using is current and has not been withdrawn or superseded by a later version on the [CCMC Registry of Product Assessments](#).

Disclaimer

The National Research Council of Canada (NRC) has evaluated only the characteristics of the specific product described herein. The information and opinions in this evaluation are directed to those who have the appropriate degree of experience to use and apply its contents (such as authorities having jurisdiction, design professionals and specifiers). This evaluation is valid when the product is used as part of permitted construction, respecting all conditions and limitations stated in the evaluation, and in accordance with applicable building codes and by-laws.

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Language

Une version française de ce document est disponible.

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CCMC recognition

The Canadian Construction Materials Centre (CCMC) assesses compliance with Canadian building, energy and safety codes. We are the only construction code compliance service supported and operated by the Government of Canada. Trusted by over 6,000 regulators across Canada.

Most Canadian authorities having jurisdiction (AHJs) consider CCMC product assessments acceptable as evidence for product approval.

CCMC assessments are recognized by construction authorities across Canada:

Alliance of Canadian Building Official Associations (ACBOA)	 (Alliance of Canadian Building Official Associations (ACBOA))
First Nations National Building Officers Association (FNNBOA)	 (First Nations National Building Officers Association (FNNBOA))
Canadian Home Builders' Association (CHBA)	 (Canadian Home Builders' Association (CHBA))
Alberta Building Officials Association (ABOA)	 (Alberta Building Officials Associations (ABOA))
Saskatchewan Building Officials Association (SBOA)	 (Saskatchewan Building Officials Association (SBOA))
Manitoba Building Officials Association (MBOA)	 (Manitoba Building Officials Association (MBOA))
Ontario Building Officials Association (OBOA)	 (Ontario Building Officials Association (OBOA))
New Brunswick Building Officials Association (NBBOA)	 (New Brunswick Building Officials Association (NBBOA))
Nova Scotia Building Officials Association (NSBOA)	 (Nova Scotia Building Officials Association (NSBOA))

The CCMC provides code compliance assessments to Canadian code requirements, consulting nationwide with construction regulators to elicit regional variations in code requirements as well as provincial and local interpretations. Users are advised to review the technical information presented in CCMC assessments when making approval decisions. [Learn more about how the CCMC provides a unique service for Canada.](#)

For more information, contact the CCMC by phone at (613) 993-6189 or by email at ccmc@nrc-cnrc.gc.ca

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Code compliance as an acceptable solution

Code Compliance via Acceptable Solutions

If a building design (e.g. material, component, assembly or system) can be shown to meet all provisions of the applicable **acceptable solutions** in Division B (e.g. it complies with the applicable provisions of a referenced standard), it is deemed to have satisfied the objectives and functional statements linked to those provisions and thus to have complied with that part of the Code.

— National Building Code of Canada, Sentence A-1.2.1.1.(1)(a)

The CCMC has determined that compliance with this provision of the Code has been demonstrated as an **Acceptable Solution**. The evaluation report provides a summary of the basis of CCMC's compliance opinion.

CCMC's code compliance opinions

All CCMC evaluation reports are opinions of code compliance established in accordance with the National Building Code of Canada, Subsection 1.2.1.

"Compliance with this Code," which requires compliance to be achieved by:

- complying with the applicable acceptable solutions in Division B, or
- using an alternative solution that will achieve at least the minimum level of performance required by Division B in the areas defined by the objective and functional statements attributed to the applicable acceptable solutions.

The CCMC assesses compliance with Canadian building, energy and safety codes, and is trusted by over 6,000 regulators across Canada.

Code compliance as an alternative solution

Code Compliance via Alternative Solutions

Where a design differs from the acceptable solutions in Division B, then it should be treated as an **"alternative solution."** A proponent of an alternative solution must demonstrate that the alternative solution addresses the same issues as the applicable acceptable solutions in Division B and their attributed objectives and functional statements. However, because the objectives and functional statements are entirely qualitative, demonstrating compliance with them in isolation is not possible. Therefore, Clause 1.2.1.1.(1)(b) identifies the principle that Division B establishes the quantitative performance targets that alternative solutions must meet. In many cases, these targets are not defined very precisely by the acceptable solutions [...] Nevertheless, Clause 1.2.1.1.(1)(b) makes it clear that an effort must be made to demonstrate that an alternative solution will perform as well as a design that would satisfy the applicable acceptable solutions in Division B—not "well enough" but "as well as."

— National Building Code of Canada, Sentence A-1.2.1.1.(1)(b)

The CCMC has determined that compliance with this provision of the Code has been demonstrated as an **Alternative Solution**. The evaluation report provides a summary of the basis of CCMC's compliance opinion.

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