Proposal Details

Proposal Details

Proposal Number
P-004758

Proponent Name
Thomas Ascroft

Proposal Status
In Consultation

Proposal Cancellation Reason(s)

Submitted Date
2024-12-13

Submitted on behalf of Nominating Organisation
Standards Australia

Consultation Start Date
2025-06-25

Consultation End Date
2025-07-16

Approved Date

Completed Date

STANDARDS Australia

Project 1: AS XXXX.1 Hempcrete Composite Construction, Part One: Materials

Project Number
P-004758-01

Project Type
New

Project Pathway
Alternative

Project Status
Proposal

Related Publications

- 2024 International Residential Code without Energy (IRC) • Appendix BL Hemp-Lime (Hempcrete) Construction

Publication Type
Standard

National Committee

Title
Hempcrete Composite Construction, Part One: Materials

What is the problem?
Currently there is no Australian Standard for hemp construction systems, or for external render on monolithic wall construction. The Australian Hemp Council, and the design and construction industry that utilises hemp in construction, see the need for a Standard to ensure that all buildings made using hemp are of the requisite high standard.
Most hemp buildings, be they in-situ hempcrete or hempcrete blocks or panels, are currently designed and constructed by individuals and companies who can be described as early adopter enthusiasts. They have engaged in specialist training, and are generally collegiate and collaborative in their approach to knowledge sharing.
However, as the popularity and awareness of hemp buildings increases, this relatively close knit group will be diluted, and the opportunity for effective knowledge sharing and peer to peer monitoring will be lost. It is therefore essential that an officially recognised and authoritative document that covers the process in its entirety is produced.
NSW Hempcrete Taskforce, undertaken by the Department of Primary Industries, identified a challenge in growing the industry as:
o “Delays in setting hemp-product standards reducing confidence and uptake, especially for building and construction products.”
As such, SA has an opportunity to be at the forefront of the industries growth and expansion.
Furthermore, certifiers are requesting that the materials and construction systems be recognised by the National Construction Code, especially non-residential projects where there is no opportunity for expert opinion to vouch for such things as international standards and test results.

Who are the intended users of the document?
Growers and processors; architects and building designers; builders; and certifiers.

What is the scope of new Publication?
Part One (PSB available in N & F):

1. Scope

2. Application

3. Norm Ref

4. Terms and Definitions (available in Design Details doc in Notes and Files)

5. Materials - Hemp Hurd
i. Seed strain selection
ii. Growing
iii. Harvesting and paddock treatment
iv. Processing and storage handling

6. Materials - Binder

i. Types
ii. Lime binder components
iii. Handling and storage

7. Materials - Additives and Aggregates

Is a research paper required?
No

What research has been undertaken?
Desktop Research by Standards Australia. Input from the Australian Hemp Council.

What assumptions have been made?
- There is a need for standards within Hempcrete construction in Australia. - There are limited standards internationally on hempcrete construction, with none at ISO and only ASTM operating in this space, but with no published standards that fall within the scope of this proposal. - Hempcrete has now been approved by the Australian government as an approved building material for residential or commercial construction - The use of Hempcrete in construction will only become more and more popular as it aligns with sustainability and efficiency needs given its carbon sequestration and thermal and vapour permeability benefits. - There is already a market for Hempcrete buildings in Australia and it is growing.

What are the research gaps?
Low/very limited.

Market competition assessment
Establishing an Australian standard for hempcrete composite construction could significantly support national and international trade by providing assurance of quality and consistency. This standard would help overcome some of the barriers related to regulatory compliance and market acceptance. While hempcrete is gaining recognition, ensuring compliance with existing Australian building standards and codes can be challenging. Builders and manufacturers must navigate various regulations, which can slow down the adoption process, (Broad Leaf Hemp). Locally, there is still a lack of awareness and acceptance of hempcrete among builders, architects, and consumers. Educating the market about the benefits and applications of hempcrete is crucial for its adoption, and this standard has the opportunity to be a key driver of best practice application in the market (Australian hemp Council). The absence of internationally recognized standards for hempcrete can hinder its acceptance in global markets. Establishing a standard in Australia could pave the way for international recognition and allow Australia to be at the forefront of International standardisation, enhancing international trade possibilities, whilst other continents, including North America and Europe, struggle with Hurd quality and a lack of processing facilities (Hemp Industry Daily, 2020).

Equivalent & related publications
There are no NSBs who have drafted a Hempcrete Standard. ASTM have an Industrial Hemp sub committee: Subcommittee D37.07 on Industrial Hemp | ASTM. None of their published standards fit the scope of this project and the only ones that might possibly fit are Work Items only and have been the case for 4/5 years with no indication of their publication date (if ever).

STANDARDS Australia

Risk Analysis & Assessment

Sources of Risks	Risk Score (0-25)	Comments
Cause and events	0	N/A

Threats and opportunities	8	Opportunities: - The Australian government has recently listed Hempcrete as an approved building material, and with no international standards, Australia has a unique opportunity to develop one of the worlds first national hempcrete construction standards. - Builders who use hempcrete may be eligible for green building grants and tax incentives aimed at promoting sustainable construction - Reduction of Australia's GHG through carbon sequestration during life-cycle - Significant efficient thermal insulation properties and fire-resistance. - The EU and the US have both been forced at times to source their Hemp hurd abroad, due to lack of processing facilities and maturity/quality issues in those locations. Having a standardised industry in Australia may see us become a leader in hurd quality and production, which could enhance trade with other countries. Threats: - Use of Hempcrete in construction is currently done by a relatively small group of early adopters, who

		are competent and share knowledge on best practice. Now that the industry is growing, this knowledge and understanding of best practice becomes diluted, necessitating the need for standardisation to maintain the requisite high standard.
Vulnerabilities and capability	9	Capability: Growth of Hemp and availability of Lime based binder are possible in all parts of Australia, making it potentially a wide-ranging material for construction and an opportunity for Australia to be a leader in growth and production. Vulnerabilities: Environmental factors such as drought, flood and fire affecting crop growth.
Changes in the external and internal context	0	N/A
Indicators of emerging risks	0	N/A

Assets and resources	3	Collaboration and interest from Australian Hemp Council, CSIRO, Master Builders Association, University of Wollongong, Australian Hemp Masonry, Softloud Architects, Envirotecture, Southern Hemp, Doyle Rural, AIHA, Think Brick, Kohu Hemp, Hemp Homes Australia WA, The Hemp Building Company
Consequences and impact on objectives	3	Lack of standards in the Hempcrete industry may impact quality of life and safe production, manufacturing, installation and application of Hempcrete products in Australia. Lack of standards will also impact market development and extent of uptake in Australia as there is no recognised standardised approach. The impact of a Hempcrete standard could help legitimize and grow the industry and the use of Hempcrete as a viable building material. Standards can assist in growing this industry sustainably, safely and collaboratively. It will also position Australia as a leader in Hempcrete standardisation globally.

Limitations of knowledge and reliability	6	Although this is a relatively new area when it comes to standardisation, there is significant research and application of hemp industrially across Australia and the world. Industrial hemp has been used for 100s of years and there exists a vast wealth of knowledge in Australia on both the growing side and the building side, as evidenced by the significant interest from Aus and NZ stakeholders in this work.
Time related factors	9	Australia has the potential to be a global hempcrete player. Australia should act quickly to publish the necessary standards to support this potential.

Total Risk Score: 38

Project 2: AS XXXX.2 Hempcrete Composite Construction, Part Two: Design Details

Project Number
P-004758-02

Project Type
New

Project Pathway
Alternative

Project Status
Proposal

Publication Type
Standard

National Committee

Title
Hempcrete Composite Construction, Part Two: Design Details

What is the problem?
Currently there is no Australian Standard for hemp construction systems, or for external render on monolithic wall construction. The Australian Hemp Council, and the design and construction industry that utilises hemp in construction, see the need for a Standard to ensure that all buildings made using hemp are of the requisite high standard.
Most hemp buildings, be they in-situ hempcrete or hempcrete blocks or panels, are currently designed and constructed by individuals and companies who can be described as early adopter enthusiasts. They have engaged in specialist training, and are generally collegiate and collaborative in their approach to knowledge sharing.
However, as the popularity and awareness of hemp buildings increases, this relatively close knit group will be diluted, and the opportunity for effective knowledge sharing and peer to peer monitoring will be lost. It is therefore essential that an officially recognised and authoritative document that covers the process in its entirety is produced.
NSW Hempcrete Taskforce, undertaken by the Department of Primary Industries, identified a challenge in growing the industry as:
o “Delays in setting hemp-product standards reducing confidence and uptake, especially for building and construction products.”
As such, SA has an opportunity to be at the forefront of the industries growth and expansion.
Furthermore, certifiers are requesting that the materials and construction systems be recognised by the National Construction Code, especially non-residential projects where there is no opportunity for expert opinion to vouch for such things as international standards and test results.

Who are the intended users of the document?
Growers and processors; architects and building designers; builders; and certifiers.

What is the scope of new Publication?
Part Two (PSB available in N & F):

1. Scope

2. Application

3. Norm Ref

4. Terms and Definitions (available in Design Details doc in Notes and Files)

5. General Design and Construction Requirements

i. Structural considerations
ii. Thermal performance and vapour permeability
iii. Acoustic performance
iv. Fireproofing and bushfire resistance
v. Waterproofing and termite barriers
vi. Wet areas
vii. Condensation and water vapour management

6. In-Situ Construction Details

7. Block Construction Details

8. Panel Construction Details

Is a research paper required?
No

What research has been undertaken?
Desktop Research by Standards Australia. Input from the Australian Hemp Council.

What assumptions have been made?
- There is a need for standards within Hempcrete construction in Australia. - There are limited standards internationally on hempcrete construction, with none at ISO and only ASTM operating in this space, but with no published standards that fall within the scope of this proposal. - Hempcrete has now been approved by the Australian government as an approved building material for residential or commercial construction - The use of Hempcrete in construction will only become more and more popular as it aligns with sustainability and efficiency needs given its carbon sequestration and thermal and vapour permeability benefits. - There is already a market for Hempcrete buildings in Australia and it is growing.

What are the research gaps?
Low/very limited.

Market competition assessment
Establishing an Australian standard for hempcrete composite construction could significantly support national and international trade by providing assurance of quality and consistency. This standard would help overcome some of the barriers related to regulatory compliance and market acceptance. While hempcrete is gaining recognition, ensuring compliance with existing Australian building standards and codes can be challenging. Builders and manufacturers must navigate various regulations, which can slow down the adoption process, (Broad Leaf Hemp). Locally, there is still a lack of awareness and acceptance of hempcrete among builders, architects, and consumers. Educating the market about the benefits and applications of hempcrete is crucial for its adoption, and this standard has the opportunity to be a key driver of best practice application in the market (Australian hemp Council). The absence of internationally recognized standards for hempcrete can hinder its acceptance in global markets. Establishing a standard in Australia could pave the way for international recognition and allow Australia to be at the forefront of International standardisation, enhancing international trade possibilities, whilst other continents, including North America and Europe, struggle with Hurd quality and a lack of processing facilities (Hemp Industry Daily, 2020).

Equivalent & related publications
There are no NSBs who have drafted a Hempcrete Standard. ASTM have an Industrial Hemp sub committee: Subcommittee D37.07 on Industrial Hemp | ASTM. None of their published standards fit the scope of this project and the only ones that might possibly fit are Work Items only and have been the case for 4/5 years with no indication of their publication date (if ever).

STANDARDS Australia

Risk Analysis & Assessment

Sources of Risks	Risk Score (0-25)	Comments
Cause and events	0	N/A

Threats and opportunities	8	Opportunities: - The Australian government has recently listed Hempcrete as an approved building material, and with no international standards, Australia has a unique opportunity to develop one of the worlds first national hempcrete construction standards. - Builders who use hempcrete may be eligible for green building grants and tax incentives aimed at promoting sustainable construction - Reduction of Australia's GHG through carbon sequestration during life-cycle - Significant efficient thermal insulation properties and fire-resistance. - The EU and the US have both been forced at times to source their Hemp hurd abroad, due to lack of processing facilities and maturity/quality issues in those locations. Having a standardised industry in Australia may see us become a leader in hurd quality and production, which could enhance trade with other countries. Threats: - Use of Hempcrete in construction is currently done by a relatively small group of early adopters, who

		are competent and share knowledge on best practice. Now that the industry is growing, this knowledge and understanding of best practice becomes diluted, necessitating the need for standardisation to maintain the requisite high standard.
Vulnerabilities and capability	9	Capability: Growth of Hemp and availability of Lime based binder are possible in all parts of Australia, making it potentially a wide-ranging material for construction and an opportunity for Australia to be a leader in growth and production. Vulnerabilities: Environmental factors such as drought, flood and fire affecting crop growth.
Changes in the external and internal context	0	N/A
Indicators of emerging risks	0	N/A

Assets and resources	3	Collaboration and interest from Australian Hemp Council, CSIRO, Master Builders Association, University of Wollongong, Australian Hemp Masonry, Softloud Architects, Envirotecture, Southern Hemp, Doyle Rural, AIHA, Think Brick, Kohu Hemp, Hemp Homes Australia WA, The Hemp Building Company
Consequences and impact on objectives	3	Lack of standards in the Hempcrete industry may impact quality of life and safe production, manufacturing, installation and application of Hempcrete products in Australia. Lack of standards will also impact market development and extent of uptake in Australia as there is no recognised standardised approach. The impact of a Hempcrete standard could help legitimize and grow the industry and the use of Hempcrete as a viable building material. Standards can assist in growing this industry sustainably, safely and collaboratively. It will also position Australia as a leader in Hempcrete standardisation globally.

Limitations of knowledge and reliability	6	Although this is a relatively new area when it comes to standardisation, there is significant research and application of hemp industrially across Australia and the world. Industrial hemp has been used for 100s of years and there exists a vast wealth of knowledge in Australia on both the growing side and the building side, as evidenced by the significant interest from Aus and NZ stakeholders in this work.
Time related factors	9	Australia has the potential to be a global hempcrete player. Australia should act quickly to publish the necessary standards to support this potential.

Total Risk Score: 38

Project 3: AS XXXX.3 Hempcrete Composite Construction, Part Three: Installation

Project Number
P-004758-03

Project Type
New

Project Pathway
Alternative

Project Status
Proposal

Publication Type
Standard

National Committee

Title
Hempcrete Composite Construction, Part Three: Installation

What is the problem?
Currently there is no Australian Standard for hemp construction systems, or for external render on monolithic wall construction. The Australian Hemp Council, and the design and construction industry that utilises hemp in construction, see the need for a Standard to ensure that all buildings made using hemp are of the requisite high standard.
Most hemp buildings, be they in-situ hempcrete or hempcrete blocks or panels, are currently designed and constructed by individuals and companies who can be described as early adopter enthusiasts. They have engaged in specialist training, and are generally collegiate and collaborative in their approach to knowledge sharing.
However, as the popularity and awareness of hemp buildings increases, this relatively close knit group will be diluted, and the opportunity for effective knowledge sharing and peer to peer monitoring will be lost. It is therefore essential that an officially recognised and authoritative document that covers the process in its entirety is produced.
NSW Hempcrete Taskforce, undertaken by the Department of Primary Industries, identified a challenge in growing the industry as:
o “Delays in setting hemp-product standards reducing confidence and uptake, especially for building and construction products.”
As such, SA has an opportunity to be at the forefront of the industries growth and expansion.
Furthermore, certifiers are requesting that the materials and construction systems be recognised by the National Construction Code, especially non-residential projects where there is no opportunity for expert opinion to vouch for such things as international standards and test results.

Who are the intended users of the document?
Growers and processors; architects and building designers; builders; and certifiers.

What is the scope of new Publication?
Part Three (PSB available in N & F):

1. Scope

2. Application

3. Norm Ref

4. Terms and Definitions (available in Design Details doc in Notes and Files)

5. Installation - In Situ

i. Formwork
ii. Materials standards, selection and specification
iii. Mixing ratios to suit performance requirements
iv. Mixing ratio control
v. Placement

6. Spray application and details

7. Insulation - Roof and Floors

Is a research paper required?
No

What research has been undertaken?
Desktop Research by Standards Australia. Input from the Australian Hemp Council.

What assumptions have been made?
- There is a need for standards within Hempcrete construction in Australia. - There are limited standards internationally on hempcrete construction, with none at ISO and only ASTM operating in this space, but with no published standards that fall within the scope of this proposal. - Hempcrete has now been approved by the Australian government as an approved building material for residential or commercial construction - The use of Hempcrete in construction will only become more and more popular as it aligns with sustainability and efficiency needs given its carbon sequestration and thermal and vapour permeability benefits. - There is already a market for Hempcrete buildings in Australia and it is growing.

What are the research gaps?
Low/very limited.

Market competition assessment
Establishing an Australian standard for hempcrete composite construction could significantly support national and international trade by providing assurance of quality and consistency. This standard would help overcome some of the barriers related to regulatory compliance and market acceptance. While hempcrete is gaining recognition, ensuring compliance with existing Australian building standards and codes can be challenging. Builders and manufacturers must navigate various regulations, which can slow down the adoption process, (Broad Leaf Hemp). Locally, there is still a lack of awareness and acceptance of hempcrete among builders, architects, and consumers. Educating the market about the benefits and applications of hempcrete is crucial for its adoption, and this standard has the opportunity to be a key driver of best practice application in the market (Australian hemp Council). The absence of internationally recognized standards for hempcrete can hinder its acceptance in global markets. Establishing a standard in Australia could pave the way for international recognition and allow Australia to be at the forefront of International standardisation, enhancing international trade possibilities, whilst other continents, including North America and Europe, struggle with Hurd quality and a lack of processing facilities (Hemp Industry Daily, 2020).

Equivalent & related publications
There are no NSBs who have drafted a Hempcrete Standard. ASTM have an Industrial Hemp sub committee: Subcommittee D37.07 on Industrial Hemp | ASTM. None of their published standards fit the scope of this project and the only ones that might possibly fit are Work Items only and have been the case for 4/5 years with no indication of their publication date (if ever).

STANDARDS Australia

Risk Analysis & Assessment

Sources of Risks	Risk Score (0-25)	Comments
Cause and events	0	N/A

Threats and opportunities	8	Opportunities: - The Australian government has recently listed Hempcrete as an approved building material, and with no international standards, Australia has a unique opportunity to develop one of the worlds first national hempcrete construction standards. - Builders who use hempcrete may be eligible for green building grants and tax incentives aimed at promoting sustainable construction - Reduction of Australia's GHG through carbon sequestration during life-cycle - Significant efficient thermal insulation properties and fire-resistance. - The EU and the US have both been forced at times to source their Hemp hurd abroad, due to lack of processing facilities and maturity/quality issues in those locations. Having a standardised industry in Australia may see us become a leader in hurd quality and production, which could enhance trade with other countries. Threats: - Use of Hempcrete in construction is currently done by a relatively small group of early adopters, who

		are competent and share knowledge on best practice. Now that the industry is growing, this knowledge and understanding of best practice becomes diluted, necessitating the need for standardisation to maintain the requisite high standard.
Vulnerabilities and capability	9	Capability: Growth of Hemp and availability of Lime based binder are possible in all parts of Australia, making it potentially a wide-ranging material for construction and an opportunity for Australia to be a leader in growth and production. Vulnerabilities: Environmental factors such as drought, flood and fire affecting crop growth.
Changes in the external and internal context	0	N/A
Indicators of emerging risks	0	N/A

Assets and resources	3	Collaboration and interest from Australian Hemp Council, CSIRO, Master Builders Association, University of Wollongong, Australian Hemp Masonry, Softloud Architects, Envirotecture, Southern Hemp, Doyle Rural, AIHA, Think Brick, Kohu Hemp, Hemp Homes Australia WA, The Hemp Building Company
Consequences and impact on objectives	3	Lack of standards in the Hempcrete industry may impact quality of life and safe production, manufacturing, installation and application of Hempcrete products in Australia. Lack of standards will also impact market development and extent of uptake in Australia as there is no recognised standardised approach. The impact of a Hempcrete standard could help legitimize and grow the industry and the use of Hempcrete as a viable building material. Standards can assist in growing this industry sustainably, safely and collaboratively. It will also position Australia as a leader in Hempcrete standardisation globally.

Limitations of knowledge and reliability	6	Although this is a relatively new area when it comes to standardisation, there is significant research and application of hemp industrially across Australia and the world. Industrial hemp has been used for 100s of years and there exists a vast wealth of knowledge in Australia on both the growing side and the building side, as evidenced by the significant interest from Aus and NZ stakeholders in this work.
Time related factors	9	Australia has the potential to be a global hempcrete player. Australia should act quickly to publish the necessary standards to support this potential.

Total Risk Score: 38

Project 4: AS XXXX.4 Hempcrete Composite Construction, Part Four: Render/Weatherproofing

Project Number
P-004758-04

Project Type
New

Project Pathway
Alternative

Project Status
Proposal

Publication Type
Standard

National Committee

Title
Hempcrete Composite Construction, Part Four: Render/Weatherproofing

What is the problem?
Currently there is no Australian Standard for hemp construction systems, or for external render on monolithic wall construction. The Australian Hemp Council, and the design and construction industry that utilises hemp in construction, see the need for a Standard to ensure that all buildings made using hemp are of the requisite high standard.
Most hemp buildings, be they in-situ hempcrete or hempcrete blocks or panels, are currently designed and constructed by individuals and companies who can be described as early adopter enthusiasts. They have engaged in specialist training, and are generally collegiate and collaborative in their approach to knowledge sharing.
However, as the popularity and awareness of hemp buildings increases, this relatively close knit group will be diluted, and the opportunity for effective knowledge sharing and peer to peer monitoring will be lost. It is therefore essential that an officially recognised and authoritative document that covers the process in its entirety is produced.
NSW Hempcrete Taskforce, undertaken by the Department of Primary Industries, identified a challenge in growing the industry as:
o “Delays in setting hemp-product standards reducing confidence and uptake, especially for building and construction products.”
As such, SA has an opportunity to be at the forefront of the industries growth and expansion.
Furthermore, certifiers are requesting that the materials and construction systems be recognised by the National Construction Code, especially non-residential projects where there is no opportunity for expert opinion to vouch for such things as international standards and test results.

Who are the intended users of the document?
Growers and processors; architects and building designers; builders; and certifiers.

What is the scope of new Publication?
Part Four (PSB available in N & F):

1. Scope

2. Application

3. Norm Ref

4. Terms and Definitions (available in Design Details doc in Notes and Files)

5. Purpose and types of external render coatings

6. Render materials and tools

i. Render Properties
ii. Unsuitable materials
iii. Render reinforcement and beads

7. Design considerations

i. Factors affecting the design of the rendering system
ii. Durability of the render
iii. Exposure conditions
iv. Resistance to rain penetration
v. Resistance to water rising from the ground without pressure
vi. Soluble salts
vii. Effects of atmospheric pollution
viii. Effects of freezing
ix. Resistance to impact or abrasion
x. Corrosion of metals
xi. Occurrence of cracking
xii. Thermal considerations
xiii. Protection afforded by architectural features and functions
xiv. Selection of renders
xv. Number, thickness and relative strength of coats
xvi. Types of render finish
xvii. Colour, texture and sealers

8. On-site actions

9. Maintenance and repair of render except in heritage restoration

10. Renders for heritage restoration

Is a research paper required?
No

What research has been undertaken?
Desktop Research by Standards Australia. Input from the Australian Hemp Council.

What assumptions have been made?
- There is a need for standards within Hempcrete construction in Australia. - There are limited standards internationally on hempcrete construction, with none at ISO and only ASTM operating in this space, but with no published standards that fall within the scope of this proposal. - Hempcrete has now been approved by the Australian government as an approved building material for residential or commercial construction - The use of Hempcrete in construction will only become more and more popular as it aligns with sustainability and efficiency needs given its carbon sequestration and thermal and vapour permeability benefits. - There is already a market for Hempcrete buildings in Australia and it is growing.

What are the research gaps?
Low/very limited.

Market competition assessment
Establishing an Australian standard for hempcrete composite construction could significantly support national and international trade by providing assurance of quality and consistency. This standard would help overcome some of the barriers related to regulatory compliance and market acceptance. While hempcrete is gaining recognition, ensuring compliance with existing

Australian building standards and codes can be challenging. Builders and manufacturers must navigate various regulations, which can slow down the adoption process, (Broad Leaf Hemp). Locally, there is still a lack of awareness and acceptance of hempcrete among builders, architects, and consumers. Educating the market about the benefits and applications of hempcrete is crucial for its adoption, and this standard has the opportunity to be a key driver of best practice application in the market (Australian hemp Council). The absence of internationally recognized standards for hempcrete can hinder its acceptance in global markets. Establishing a standard in Australia could pave the way for international recognition and allow Australia to be at the forefront of International standardisation, enhancing international trade possibilities, whilst other continents, including North America and Europe, struggle with Hurd quality and a lack of processing facilities (Hemp Industry Daily, 2020).

Equivalent & related publications

There are no NSBs who have drafted a Hempcrete Standard. ASTM have an Industrial Hemp sub committee: Subcommittee D37.07 on Industrial Hemp | ASTM. None of their published standards fit the scope of this project and the only ones that might possibly fit are Work Items only and have been the case for 4/5 years with no indication of their publication date (if ever). There are EN standards on rendering that will be referenced.

STANDARDS Australia

Risk Analysis & Assessment

Sources of Risks	Risk Score (0-25)	Comments
Cause and events	0	N/A

Threats and opportunities	8	Opportunities: - The Australian government has recently listed Hempcrete as an approved building material, and with no international standards, Australia has a unique opportunity to develop one of the worlds first national hempcrete construction standards. - Builders who use hempcrete may be eligible for green building grants and tax incentives aimed at promoting sustainable construction - Reduction of Australia's GHG through carbon sequestration during life-cycle - Significant efficient thermal insulation properties and fire-resistance. - The EU and the US have both been forced at times to source their Hemp hurd abroad, due to lack of processing facilities and maturity/quality issues in those locations. Having a standardised industry in Australia may see us become a leader in hurd quality and production, which could enhance trade with other countries. Threats: - Use of Hempcrete in construction is currently done by a relatively small group of early adopters, who

		are competent and share knowledge on best practice. Now that the industry is growing, this knowledge and understanding of best practice becomes diluted, necessitating the need for standardisation to maintain the requisite high standard.
Vulnerabilities and capability	9	Capability: Growth of Hemp and availability of Lime based binder are possible in all parts of Australia, making it potentially a wide-ranging material for construction and an opportunity for Australia to be a leader in growth and production. Vulnerabilities: Environmental factors such as drought, flood and fire affecting crop growth.
Changes in the external and internal context	0	N/A
Indicators of emerging risks	0	N/A

Assets and resources	3	Collaboration and interest from Australian Hemp Council, CSIRO, Master Builders Association, University of Wollongong, Australian Hemp Masonry, Softloud Architects, Envirotecture, Southern Hemp, Doyle Rural, AIHA, Think Brick, Kohu Hemp, Hemp Homes Australia WA, The Hemp Building Company
Consequences and impact on objectives	3	Lack of standards in the Hempcrete industry may impact quality of life and safe production, manufacturing, installation and application of Hempcrete products in Australia. Lack of standards will also impact market development and extent of uptake in Australia as there is no recognised standardised approach. The impact of a Hempcrete standard could help legitimize and grow the industry and the use of Hempcrete as a viable building material. Standards can assist in growing this industry sustainably, safely and collaboratively. It will also position Australia as a leader in Hempcrete standardisation globally.

Limitations of knowledge and reliability	6	Although this is a relatively new area when it comes to standardisation, there is significant research and application of hemp industrially across Australia and the world. Industrial hemp has been used for 100s of years and there exists a vast wealth of knowledge in Australia on both the growing side and the building side, as evidenced by the significant interest from Aus and NZ stakeholders in this work.
Time related factors	9	Australia has the potential to be a global hempcrete player. Australia should act quickly to publish the necessary standards to support this potential.

Total Risk Score: 38

STANDARDS Australia

Net Benefit & Consultation

What impact will these new Standard(s) or Publication(s) have on public health and safety in Australia? (positive and negative?)
Hemp composite construction has benefits in the growing phase, the installation phases, and the ongoing building performance phase through reduced carbon footprint and improved thermal and condensation control.
By formalising best practices, the Standard would ensure that hemp-based buildings meet consistent, high-quality benchmarks for structural integrity, fire resistance, moisture control, and indoor air quality. This is particularly important as the industry grows beyond early adopters to include a broader range of builders and developers, some of whom may lack specialist training. A recognised Standard would also support certifiers and regulators in assessing compliance, reducing the risk of unsafe or substandard construction. Ultimately, it would foster greater confidence in hemp as a sustainable, safe building material.

What impact will these new Standard(s) or Publication(s) have on the broader community in Australia from a social perspective? (positive and negative?)
Encourage uptake of healthier high performance buildings; economic benefits for farming communities through crop diversification. A clear Standard would also empower community-led building projects, such as affordable housing and eco-villages, by providing accessible, trusted guidelines. Moreover, it would promote healthier living environments through the use of non-toxic, breathable materials, contributing to improved wellbeing. As public trust in hemp construction grows, communities are more likely to embrace innovative, sustainable building practices that align with environmental and social values.

What impact will these new Standard(s) or Publication(s) have on the natural environment in Australia? (positive and negative?)
Introducing a Standard for hemp construction systems would have a positive environmental impact in Australia by promoting the use of a renewable, low-carbon building material. Industrial hemp sequesters more carbon per Ha/year than forestry, and aids in nitrogen fixing and rehabilitation of degraded soils; hemp hurd can be processed on farm, reducing transport emissions, and is generally used within 500km of farm; Carbon - sequestration occurs during growing and again during curing in the building, plus high insulation values reduce thermal comfort energy demand.

What impact will these new Standard(s) or Publication(s) have on market competition in Australia? (positive and negative?)
Provide a reliable and trusted standard for construction of high performance low carbon buildings as a viable alternative to conventional construction systems. A Standard for hemp construction systems would enhance competition in Australia's building and materials sectors by levelling the playing field and encouraging innovation. Currently, the lack of formal guidelines limits market entry to those with specialist knowledge or access to informal networks. A recognised Standard would reduce these barriers, enabling more builders, manufacturers, and suppliers to confidently enter the market. This would drive product development, improve quality, and potentially lower costs through increased supply and efficiency. It would also support fairer procurement processes, particularly in public and commercial projects, by providing clear criteria for compliance. Overall, the Standard would stimulate a more dynamic, inclusive, and competitive industry.

What impact will these new Standard(s) or Publication(s) have on the economy in Australia? (positive and negative?)
Establishing a Standard for hemp construction systems could deliver significant economic benefits for Australia. It would provide the certainty needed to attract investment across the hemp supply chain—from farming and processing to manufacturing and construction. By enabling broader market participation and reducing regulatory uncertainty, the Standard would help scale production, improve efficiency, and lower costs. This could lead to job creation, particularly in regional areas where hemp is grown and processed, and stimulate growth in related industries such as sustainable design and green building technologies. In the long term, it would support a more resilient, diversified, and future-focused construction economy.

Who has been consulted and what are their views?
The Australian Hemp Council represents a broad range of growers, processors, designers and builders, all of whom have been calling for an Australian Standard for "hempcrete construction". Other associations supporting this are the Building Designers Ass'n of Australia, Renew (Australia) Inc., and a range of individual businesses. A task group has been formed to begin drafting the Standard, using the SA template, and a preliminary discussion has been held with SA.

STANDARDS Australia

Files

FILE

Hempcrete - Project Task Breakdown template.xlsx
(https://standards.my.site.com/proposal/sfc/servlet.shepherd/document/download/069Mn00000hTKCrIAO?operationContext=S1)