



Thermal Cladding
Solutions

Product Data Sheet

TCS-PV-X / S

1. PRODUCT INFORMATION:

Product Name: TCS-PV-X / S

TCS-PV series of thermal renders multi-purpose, single coat cement based renders and are manufactured to strict and exacting specifications. The cement based render comprises of Portland Cement and calcium hydroxide as the major ingredients. The render has numerous benefits including but not limited to being up to 6 time lighter than conventional renders, fire resistance of 2hrs @1200°C @ 20mm thickness, sound insulation, hydrophobic (water resistant), breathable and made of 99% inorganic materials and 40% post-consumer recycled products, making it a truly “green” building material.

In addition, the render may be applied in one coat of up to 20mm thickness saving money on installation. The render can be painted with either acrylic paints (render will then be sealed) or ochre paints to allow the render to breath. The render has a recommended curing time of 28 days at achieve full strength

Features:

- Ease of installation
- Single coat application
- Adheres to numerous substrates
- No additives required

Benefits:

- Up to 7 times lighter than conventional render
- Fire resistant
- Thermal insulator
- Sound insulation
- Hydrophobic
- V.O.C. free
- UV reflective

2. TECHNICAL DATA

ITEM	TCS-PV-X	TCS-PV-S
Texture:	Coarse	Smooth
Bag Weight:	20 Kg	20 Kg
Bag Dimensions:	78x58x20 cm	78x58x20 cm
Dry Density:	400 Kg/m ³	350 Kg/m ³
Fire Class:	A1 Fire Resistant Non-combustible	A1 Fire Resistant Non-combustible
Adhesive Tensile Strength:	≥0.23 N/mm ²	≥0.23 N/mm ²
Thermal Conductivity:	T1—0.07 W/MK	T1—0.07 W/MK
Capillary Water Absorption:	50G/m ² /24 Hr	50G/m ² /24 Hr
Pressure Resistance:	CS II ≥ 1.5 N/mm	CS II ≥ 1.5 N/mm
Approximate Coverage:	12.3m ² @ 5mm Thickness	12.30m ² @ 5mm Thickness
Shelf Life:	12 Months	12 Months

3 . COVERAGE

COAT THICKNESS	TCS-PV-X (m ²)	TCS-PV-S (m ²)
5mm	12.3	10
10mm	6.15	5
15mm	4.10	3.33
20mm	3.07	2.5

4. MIXING:

Preparation: Pour a TCS-PV-S 20kg bag into a mixing container, followed by 15 litres of water and mix between 10 to 12 minutes.

1. Add approximately 2/3 of the required water (10L) into the container then empty the whole bag and start the mixing process.
2. About 3 minutes after step 1, add the remaining 1/3 of water (5L) and continue mixing for 7 to 9 minutes.

A plastering machine can be used.

Mixing should be done mechanically at a low speed until the mixture reaches a homogenous consistency.

- Warning:
1. The whole bag must be mixed to ensure proper consistency , never use open and /or half used bags.
 2. You can add additional water in small amounts as necessary to achieve optimum consistency and workability. The additional amount of water added can't be higher than 0.50 litres per bag.
 3. For proper mixing use the correct mixer device.

5. SUBSTRATE:

Substrate Type: Substrates include: OSB, plywood, concrete, cinder blocks, bricks, dense glass, dry wall, sheetrock, EPS, XPS, plastic, wood and steel structures.

Preparation: The application surface must be structurally sound, clean, free of dust, mould, dirt, silicones and paint products. The application surface needs to be smooth and free from defects. Major cracks, holes or voids should be prepared prior to application. The surface shall be wet especially on highly porous and absorbing surfaces or at high temperatures.

Application: Gauge sticks (long, narrow strip of aluminium bars) at desired thickness should be placed on the surface at equal distances to control the thickness and consumption of the material.

TCS-PV-X/S can be applied in a single coat to 25mm.

Prepared material should be applied between these sticks using a steel trowel or plastering machine then levelled with a straight edge.

Various finishes can be achieved with different techniques, which gives you the flexibility to get creative!

6. HANDLING AND STORAGE

Handling: Wear appropriate protective equipment when working with this product. Promptly remove dusty clothing, or clothing wet with render mix, and launder before re-using. Wash thoroughly after exposure to render dust, or wet render mixtures. Keep out of reach of children.

Storage: Store in a dry location. Atmospheric temperatures and pressures do not affect the shelf life of this product. However, moisture contamination will render the product useless. Keep TCS-PV-X/S concentrate dry until used.

Disposal: This product must be disposed of in accordance with local council or state regulations.

Safety: Please read the TCS-PV-X/S SDS available on the web site.

7.0 DISCLAIMER

This information is furnished without warranty, representation, inducement or license of any kind, except that it is as accurate as Thermal Cladding Solutions Pty Ltd's knowledge or is obtained from sources believed to be accurate. Thermal Cladding Solutions Pty Ltd does not assume any legal responsibility for its use or reliance upon the same. Customers are encouraged to conduct their own test. Before using the product, read the labels.

TCS reserves the right to change, modify or alter the information contained within this PDS as part of their ongoing . TCS does not warrant installation of this product by third parties.

15. REGULATORY INFORMATION

Australian Inventory of Chemical Substances

65997-15-1	Portland Cement
1305-62-0	Calcium Hydroxide

Standard for the Uniform Scheduling of Drugs and Poisons (SUSMP)	Not Scheduled
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16. OTHER INFORMATION

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Abbreviations and acronyms:

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

CAS: Chemical Abstracts Service (division of the American Chemical Society)

USECHH: Use and Standard of Exposure Chemical Hazardous to Health

IARC: International Agency for Research on Cancer

TWA: Time Weighted Average

NES: National Exposure Standard (Safe Work Australia - Workplace Exposure Standards For Airborne Contaminants)