

# POWERCLAD®

## Weather Protection & Containment Solutions Vented Sheeting

### Installation Instructions

Revision 4.8

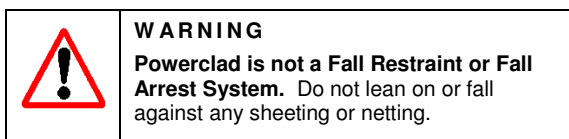
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**As with all installations, a Health & Safety risk assessment should be undertaken by a qualified and competent person to ensure that the supporting structure is designed to accommodate the increased wind forces on sheeted scaffolds.**

It is essential that qualified and trained personnel responsible for fitting and maintaining the sheeting properly understand the requirements for ensuring that it is fixed so that it will perform as intended. Powerclad should only be installed in accordance with these Installation Instructions.

Final determination of the suitability of any information or material for the use contemplated and the manner of use is the sole responsibility of the user and the user must assume all risk and liability in connection therewith.

1. Powerclad Vented Sheeting is a temporary, general purpose, containment and/or weather protection sheeting system. It is permeable to provide ventilation and dispersion of air pressure and solvents.



2. Prior to installation, it essential that a thorough safety review and risk assessment of the scaffold design is undertaken to ensure that the structure will withstand the additional forces caused by sheeting the scaffold. The safety review and risk assessment should be far reaching and include consequences of installing sheeting close to unusual suction forces (such as motorways, bridges, tunnels & railway tracks), to surrounding buildings and areas, the public, pedestrian and vehicular traffic and the consequences of accidental collapse.

3. Only Powerties or Toggle ties manufactured by ITP Ltd are recommended for fixing Powerclad Vented Sheeting to scaffolds. Cable/ratchet ties or any other rigid fastenings are not recommended as these may cut through the fastening points. Powerties are used to fasten both the reinforced hems and the reinforcement strip in the middle of the sheet.

4. Powerclad Vented Sheeting is normally installed horizontally or vertically on the outside of the scaffold.

5. Powerclad may be installed on the inside of the scaffold only where unusual suction forces are likely to be encountered (fast moving traffic alongside roads, motorways, bridges, tunnels & railway tracks and sites where wind may be funnelled).



Sheeted scaffolds incur higher wind loading.

When installed on the inside of the scaffold, sheeting is unable to detach and the scaffold needs to be designed to withstand the additional forces.

Failure to strengthen the scaffold structure may lead to its collapse.

6. Clamp fittings and poles protruding into the Vented Sheeting should be avoided as these will chafe and eventually puncture the sheeting. Where necessary, sheeting should be protected from protrusions with suitable protective covers.

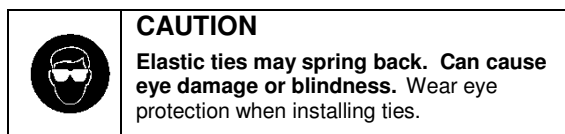
7. For safety considerations, Powerclad Vented Sheeting should never be installed during windy conditions.

8. It is the contractor's responsibility to ensure that for each site, an expert analysis of anticipated weather conditions is conducted and that an adequate and appropriate support density ( the number of ties per square metre ) is used to tie the sheeting to the scaffold structure.

9. In windy conditions, an inadequate number of ties will inevitably result in the sheeting detaching prematurely and too many ties may put excessive forces on the scaffold structure leading to its collapse. In high winds, the sheeting should be regarded as sacrificial in order to maintain the integrity of the scaffold structure. Sheeting begins to detach as soon as the wind forces exceed the breaking strength of the ties and/or the loops and/or the sheeting material.

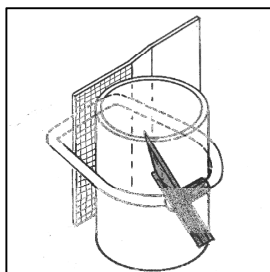
10. All structures require individual design interpretation depending upon site location, elevation and shape, the period of installation, the variability of the wind speed factors and whether the sides of the structure are sheeted or open.

11. A minimum support density of 1 Powertie per square metre of sheeting is recommended. **For further information and recommendations, please refer to the Guide for the use of Powerties.**



12. The scaffold should be designed and erected so that the tubes are aligned with the centres of the reinforced hems and the reinforcement strip in the middle of the sheet.

13. To fasten each hem, the Powertie toggle is pushed through the material adjacent to the hem, then passed around the hem. The hook end of the Powertie is then passed around the scaffold tube and clipped to the shock cord as illustrated.



*Fastening the reinforced hems to the scaffold*

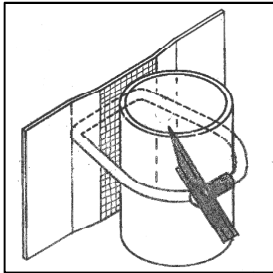
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14. To secure the middle of the sheet, the Powertie toggle is pushed through the material and passed around the reinforcement strip. The hook end of the Powertie is then passed around the scaffold tube and clipped to the shock cord, securing to the scaffold as illustrated.



*Fastening the middle reinforcement strip to the scaffold*

15. In common with good working practice, the support density should be doubled for 4 metres from the end of each run of sheeting or at corners of structures where the sheeting should be returned around the edges of the scaffold. This provides added security where the sheeting is most vulnerable in inclement weather.

16. For rapid and efficient horizontal installation and in order to achieve correct positioning and tensioning, firstly the upper and central fastening points are tied at predetermined and equally spaced intervals to the top ledger and guard rail respectively. The lower band of fastening points is then tied from the lift below as the next roll is installed.

17. Similarly, for vertical installations, the roll is progressively unrolled from the top of the structure and the sheeting tied as the roll is lowered. Unrolling the entire roll before tying is not recommended since it is liable to flap. The roll should be lowered carefully and

should not be allowed to drop since it may fall onto people or property.

18. To minimise the risk of uplift, overlapped sheeting should be 'tiled' such that the prevailing wind passes over the overlap.



#### WARNING

**Do not walk on Powerclad Vented Sheeting.** It is not designed for walking on and it is slippery when wet.

19. **As with all installations, a Health & Safety risk assessment should be undertaken by a qualified and competent person to ensure that the supporting structure is designed to accommodate the increased wind forces on sheeted scaffolds. It is essential that qualified and trained personnel responsible for fitting and maintaining the sheeting properly understand the requirements for ensuring that it is fixed so that it will perform as intended.**

20. These installation instructions are based upon currently available good practice and information and only offered as a general guide. Final determination of the suitability of any information or material for the use contemplated and the manner of use is the sole responsibility of the user and the user must assume all risk and liability in connection therewith. Check the suitability and safety of the products for the use envisaged with all current and applicable national standards.

21. **Powerclad should be inspected at regular weekly intervals (or immediately after windy conditions) to ensure that the sheeting is securely tied. Any broken ties or torn sheeting should be replaced as further damage and tearing will inevitably result if the sheeting is allowed to flap unnecessarily.**

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