

# POWERCLAD® SCAFFOLD SHEETING

## INSTALLATION INSTRUCTIONS

### PRE-INSTALLATION

Prior to installation, it is 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. This 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.

Qualified and trained personnel responsible for fitting and maintaining the sheeting must 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. 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.

### INSTALLATION

1. Powerclad Scaffold Sheeting is normally installed horizontally or vertically on the outside of the scaffold. Horizontally installed, it can be butt-joined or overlapped. For overlapped installations, the scaffold lifts or bays should be designed to match the spacing of the outer two reinforcement bands.
2. 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.
3. Elasticated Toggle Ties (Powerties) manufactured by ITP are recommended for fixing Powerclad Scaffold Sheeting to scaffolds. See Fig. 1.
4. Clamp fittings and poles protruding into the Scaffold Sheeting should be avoided as these will chafe and eventually puncture the sheeting. Where necessary, protect sheeting from protrusions with suitable protective covers.
5. For safety, never install Powerclad Scaffold Sheeting during windy conditions.
6. For horizontal overlapped installations, the orientation of the overlap is important. For weather protection, the bottom of the upper sheet should be outside the top of the lower sheet in order to provide a tiled effect allowing rainwater to run off. However, the opposite would be more appropriate in demolition applications so that falling small debris and dust is deflected back into the work area. See Fig. 2.
7. For vertical overlapped installations, the overlap should be orientated with the prevailing winds in mind in order to minimise wind uplift.
8. For containment applications, the overlaps can be sealed in a number of different methods including heat welding, self adhesive bonding or mechanical fixing.

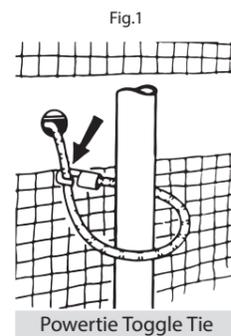


Fig.1  
Powertie Toggle Tie

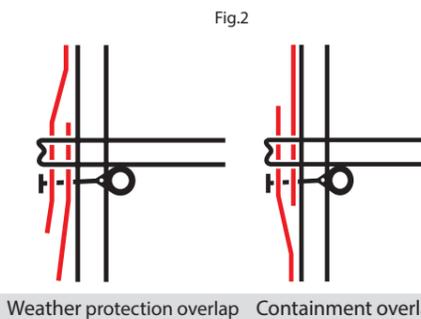


Fig.2  
Weather protection overlap    Containment overlap

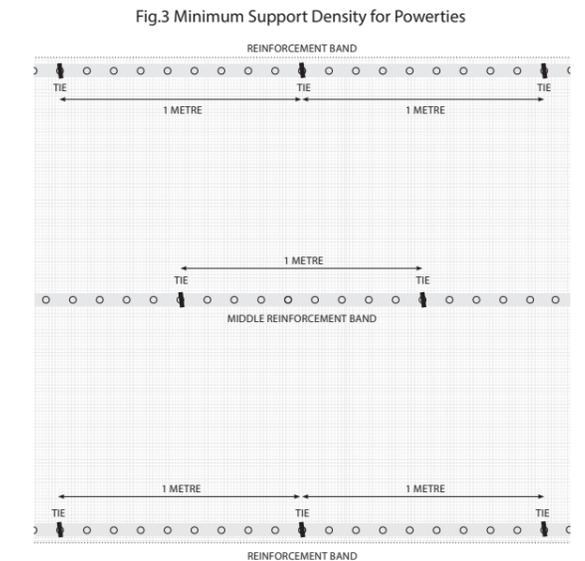


Fig.3 Minimum Support Density for Powerties

### 9. SUPPORT DENSITY AND WIND CONDITIONS

- a) In windy conditions, an inadequate number of ties may result in the sheeting detaching prematurely, while 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.
- b) All structures require individual design 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.
- c) A **MINIMUM** support density of **one (1) Powertie per square metre** of sheeting is recommended. See Fig. 3.
- d) 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. See Fig. 4 and chart.

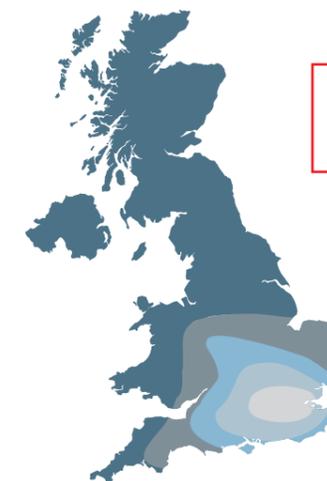
10. In common with good working practice, the support density should be doubled for two (2) metres from the end of each run of sheeting or at corners of structures where the sheeting should be returned around the edges of the scaffold. This provides added security where the sheeting is most vulnerable in inclement weather.

11. For rapid and efficient horizontal installation and in order to achieve correct positioning and tensioning, tie the upper and central fastening points first, 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.

12. Similarly, for vertical installations, the roll is 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.

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

14. 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 result if the sheeting is allowed to flap unnecessarily.



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Fig.4  
Recommended Support Density for Powerties



BUILDING HEIGHT (metres)	ZONE				
	A	B	C	D	E
10	1-1.5	1.2-1.5	1.2-2	1.5-2	1.5-2
15	1-1.5	1.2-1.5	1.2-2	1.5-2	1.5-2
20	1.2-1.5	1.2-2	1.5-2	1.5-2	1.5-3
30	1.2-2	1.2-2	1.5-2	1.5-3	2-3
40	1.2-2	1.5-2	1.5-2	2-3	2-3
50	1.2-2	1.5-2	1.5-3	2-3	2-3

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