

# TechPlas SoleBoard Weathering Performance

TechPlas SoleBoards are a PVC alternative to hardwood and LVL sole boards used to base out the scaffold where there is uneven ground or soft surfaces.

TechPlas SoleBoards are manufactured using UV resistance additives which makes them suitable for use outdoors. TechPlas has undertaken accelerated weathering testing to estimate the expected effect that long term exposure to UV and moisture will have on TechPlas SoleBoards.

QUV testing is a common method for polymer based products to determine usable life, although all results are comparative only, meaning that data needs to be adequately interpreted and is presented as such to the best of TechPlas' ability in this document.

## Data

<u>Test</u>	Initial (t0)	≈5 Years	≈7Years
Impact (Charpy) Kj/M <sup>2</sup>	13.55	11.66	10.98
Weight Loss (t0= 250g)	-	0.09g (0.035%)	0.13g (0.05%)
Chalking Δ b	0.9	2.6	4.2

## Methodology

SoleBoard (TP8692) material samples tested in ATLAS Ci5000 Xenon arc Weatherometer, running ASTM G155 for 4,119 hours, accelerated weather testing to ≈ 7 years of exposure to direct Australian sunlight. As these tests were conducted on a single surface it is assumed that 4,119 of direct sunlight equates to ≈ 14+ years of usable life. It is more likely that product life will be limited through physical wear and tear more than weather exposure.

## Impact

Charpy impact tests conducted in accordance with ISO 179-1:2000 on notched samples to determine a difference in impact resistance. Indications of results are appropriate and consistent with PVC materials used in building and construction.

## Weight Loss

Loss of overall material mass due to photo-destabilization. Indications of results are appropriate and consistent with PVC materials used in building and construction.

## Chalking and Colour Change

Release of TiO<sub>2</sub> particles from the product result in a “chalky” surface finish. As the SoleBoard has a textured, grooved surface chalking and colour change have negligible impact on the products overall performance.

## Standard Use

- 3.5T load limit over 100mmx100mm jack or larger
- To be used as per AS.NZS1577:2018.
- External structure evaluated at end of use and physically damaged good retired from use
- Do not throw, cut or modify SoleBoard products
- If contaminated can be cleaned with standard pressure washer
- Rotate surface of use to ensure even wear of SoleBoard

## Conclusion

Based on this testing TechPlas can provide a 5-year limited manufacturer's warranty on SoleBoards and estimate that when used in accordance with the installation instructions outlined above; the product will perform well beyond this period.