



Our ref: 22-2240
Enquiries: F. du Toit
Fax: 086 605 8568
Tel: (012) 653 2959
Date: 11 August 2022

Epik Trading (Pty) Ltd.
19 Colenso St,
Paulshof,
Sandton,
Johannesburg,
South Africa

MASC Report No: 22-2240

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EVALUATION OF METALCOAT F2

1. SUBJECT

The evaluation of MetalCoat F2 to determine environmental influence when applied to a Solar Panel protective lens.

The MetalCoat F2 was evaluated according to the following standards:

- **SANS 60079-0: 2019** Explosive atmospheres – Part 0: Equipment – General requirements

2. DESCRIPTION OF EQUIPMENT

MetalCoat F2 is an economic nano protection product which provides hydrophobic effect to applied surfaces.

MetalCoat F2 was applied to a Growcol model ASL 160-18-M Solar Panel protective lens as received for evaluation.

3. METHOD OF EVALUATION

Two Growcol model ASL 160-18-M panels, one with treated MetalCoat F2 and the other as factory manufactured, was evaluated over a 30-day period. The panels were subjected to accumulation of dust, dirt and water on the lenses.

4. RESULTS OF EVALUATION

Dust accumulation, dirt and water:

The treated panel protective lens cleaned to a cleaner surface than the untreated panel lens utilising an air blower as a cleaning method.

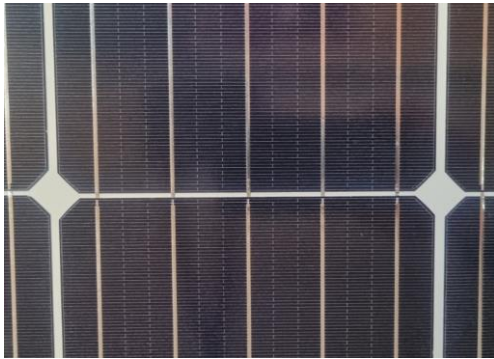


Water spray utilising clean water with no added cleaning additives:

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Treated panel – The surface of protective lens cleaned to smoother surface with no water stains visible after drying with an absorbent cloth.



Non-treated factory manufactured panel – water stains remained on surface of the protective lens with a more irregular finish after drying with an absorbent cloth.



5. CONCLUSION

MetalCoat F2 applied to a protective lens of a solar panel provides a cleaner smoother surface that repels water and prevents water staining that make the panel more efficient in terms of cleaning.

6. CONDITIONS OF ASSESSMENT

- Any alterations and / or modifications to the design or construction of the system, its components or exceeding their ratings will invalidate this test report.
- This report only covers the prototype as described in Clause 2.
- The technical datasheet refers “not apply on surfaces including Glass”. Contact Solar Panel manufacturer for approval before application.

7. DOCUMENTATION

Document No.	Document Title	Sheet	Issue	Date (yyyy/mm/dd)
Technical Data Sheet	MetalCoat F2	1 of 2	-	2019/05/29

MASC lab notes and documentation is kept in the MASC **22-2240** project file.

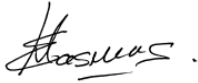
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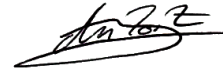
8. VALIDITY OF THIS REPORT

This Test Report only covers the equipment and process as stated in this report. Any alterations and/or modifications to the design / repairs or construction of the unit(s), exceeding the rating or using it in a location other than those for which tested, will invalidate this report.

Yours faithfully



M. Erasmus
TECHNICAL SPECIALIST



F. du Toit
TECHNICAL SPECIALIST

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