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Rigifoam (Pty) Ltd Group Brand



NUI® CASE STUDIES

WATERPROOFING COATING SYSTEM CONCRETE ROOF 3500m²

- Ultraprime 800MT (Part A&B)
- UltraSpray® 401-450 / 501-450
- UltraCote™ 850A15 / 500-211

Substrate: Concrete

Wonderboom Airport- Pretoria 2016 Compiled by: NUI®
QA Manager





INTRODUCTION

Polyproof (coating applicator) approached National Urethane Industries (NUI) Pty Ltd with a request for a waterproofing system which can be applied on a ±3500m² concrete roof at Wonderboom Airport in Pretoria North.

The following waterproofing/coating system was recommended by NUI®:

- **Concrete Primer**
One Coat - Ultraprime 800MT (Part A&B)
- **Polyurea Intermediate Coat**
One Coat - UltraSpray® 401-450 / 501-450
- **UV Protective Topcoat**
One Coat - UltraCote™ 850G25 / 500-211

SURFACE PREPARATION AND COATING APPLICATION (see figure 1 to 15)

The concrete substrate was prepared in accordance with NACE No. 6/SSPC - SP 13 prior to the application of the waterproofing/coating system and the cleanliness was acceptable.

The primer and topcoat were applied by a roller and brush methods while a spray application method was used for the intermediate coat.

The applied coating system comprised one coat Ultraprime 800white (wet concrete primer) with a recommended dry film thickness (DFT) of 200µm, one coat UltraSpray 401-450/ Ultrathane 501- 450 black (intermediate coat) with a recommended DFT of 1.5-3mm and one coat UltraCote 850G25/Ultrathane 500-211 medium sea grey (topcoat) with a recommended DFT of 50-100 µm.



Figure 1: Wonderboom Airport roof after application of the primer



Figure 2: Wonderboom Airport roof during application of the primer



Figure 3: Wonderboom Airport roof during application of the primer



Figure 4: Wonderboom Airport roof during application of the intermediate and topcoats



Figure 5: Topcoat showing good finish

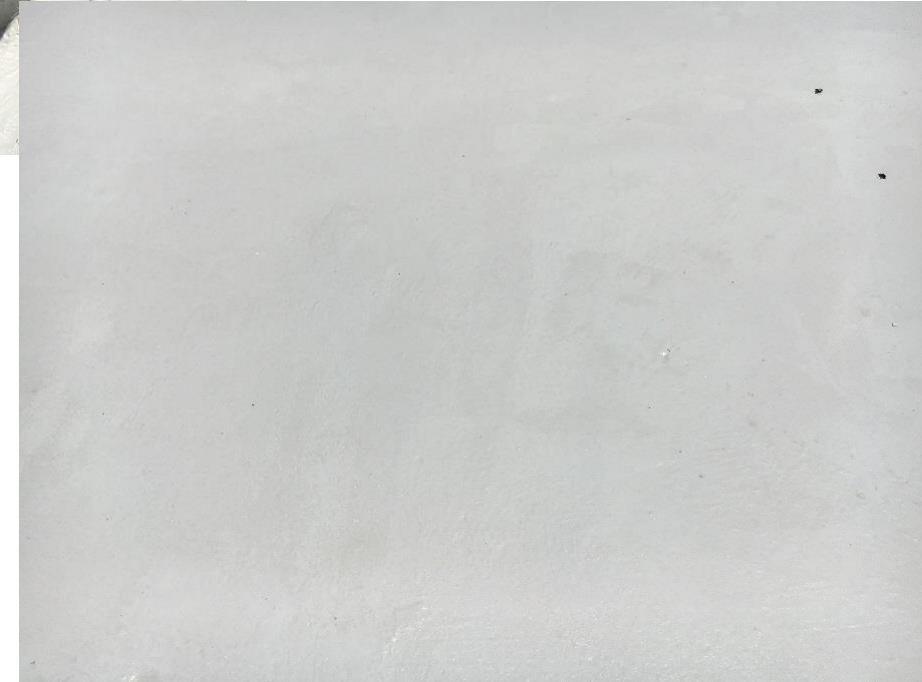


Figure 6: Topcoat showing good finish



Figure 7: Overview of the lower west-section showing the coating system



Figure 8: Overview of the upper west-section showing the coating system,



Figure 9: Overview of the lower east-section showing coating system



Figure 10: Overview of the upper east-section showing the coating system

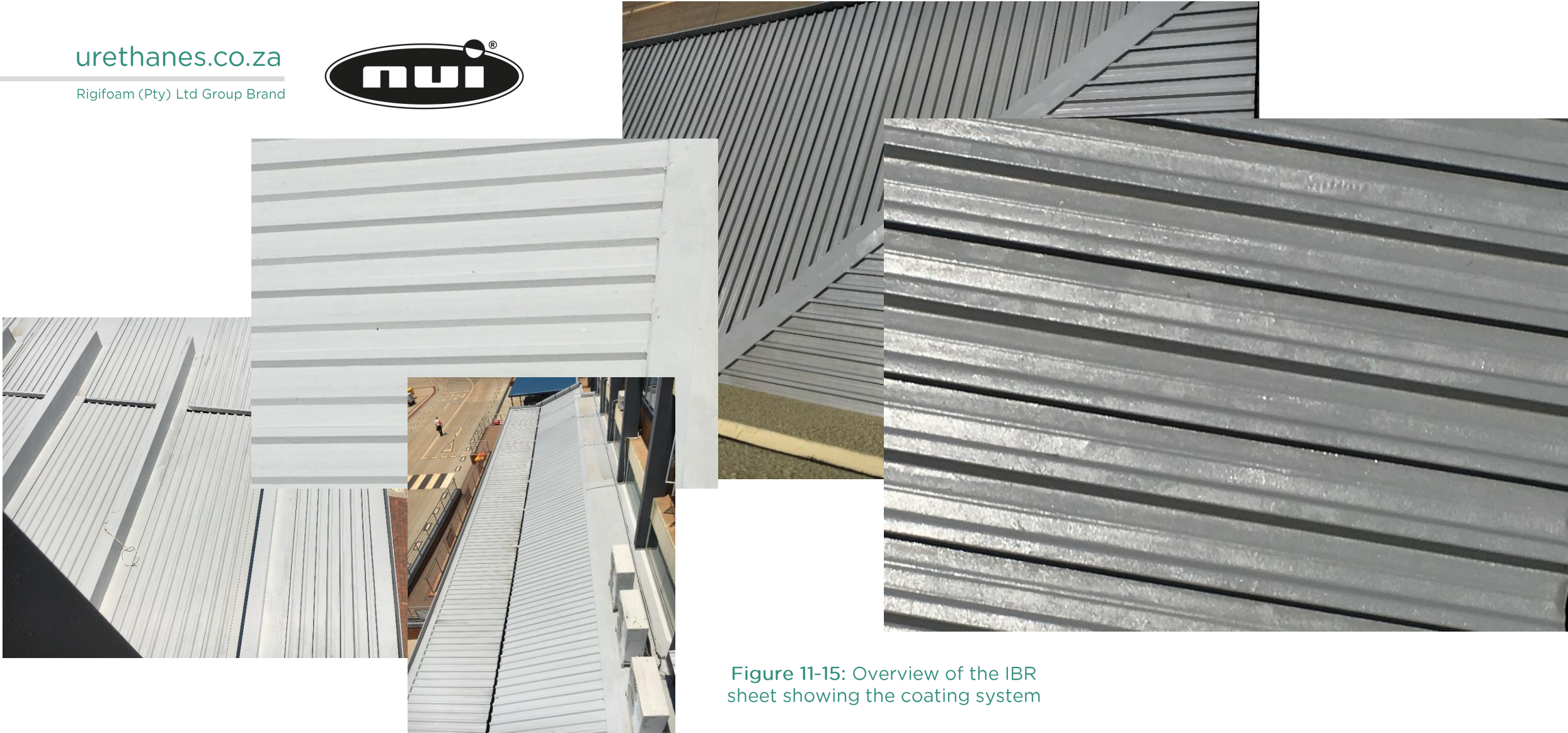


Figure 11-15: Overview of the IBR sheet showing the coating system