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Rigifoam (Pty) Ltd Group Brand



NUI® CASE STUDIES

WATERPROOFING COATING SYSTEM VARIOUS SUBSTRATES ROOF 6000m²

- UltraCote™ 520-020
- UltraCote™ 525A15 Red
- UltraPrime 800-EBA / WCB
- UltraSpray® 401-450 / 501-450
- UltraCote™ 850A15 / 500-211
- Bitprime 760
- UltraSpray® 400-800M / 500-800M

Substrate: Concrete

Tshwane Town Hall NuPower / Formprops – Pretoria
20162016 Compiled by: NUI® QA Manager





INTRODUCTION

NuPower / Formprops (coating applicator) approached National Urethane Industries (NUI) Pty Ltd with a request for a waterproofing system which can be applied on a $\pm 6000\text{m}^2$ roof made up of cementitious polymer on polystyrene boards/clay tiles/concrete/concrete with Bitumen residue substrates for Tshwane Town Hall in Pretoria CBD.

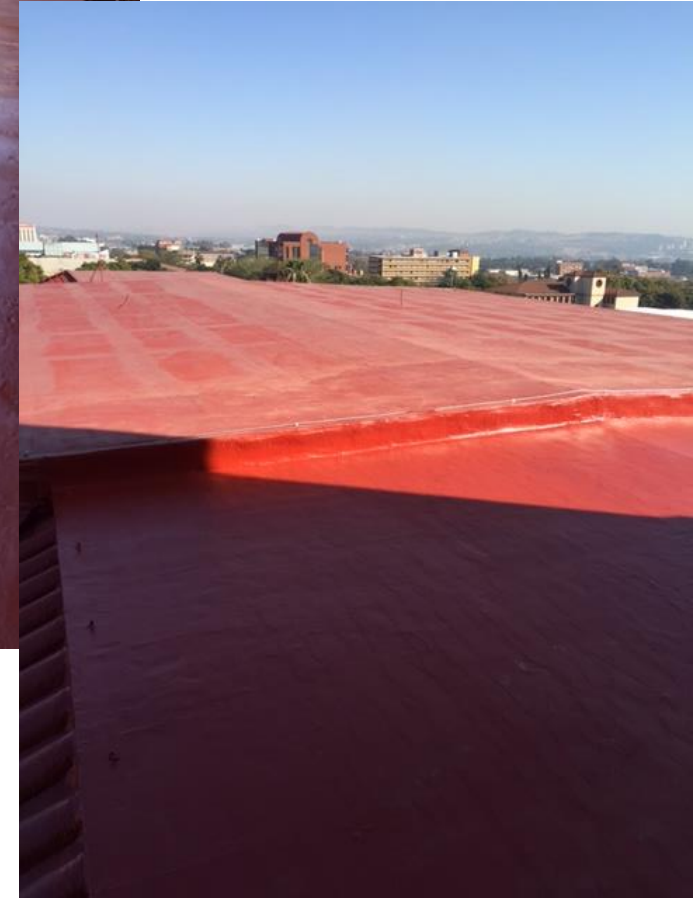
The following waterproofing/coating system was recommended by NUI®:

- **Cementitious Polymer Areas**
 - One Coat - UltraCote™ 520-020
 - One Coat - UltraCote™ 525A15 Red
- **Clay Tile Areas**
 - One Coat - UltraCote™ 525A15 Red
- **Concrete Areas**
 - One Coat - Ultraprime 800-EBA / WCB
 - One Coat - UltraSpray® 401-450 / 501-450
 - One Coat - UltraCote™ 850A15 / 500-211
- **Concrete with Bitumen Residue Areas**
 - One Coat - Bitprime 760
 - One Coat - UltraSpray® 400-800M / 500-800M
 - One Coat - UltraCote™ 850A15 / 500-211



Figure 1: An area of the roof with a concrete substrate after application of the coating/waterproofing system

Figure 2: An area of the roof with cementitious polymer on Polystyrene boards after application of the coating/waterproofing system





SURFACE PREPARATION AND COATING APPLICATION (see figure 1 to 5)

Surface preparation on different substrates was carried-out adequately in accordance with the application specification and the cleanliness was acceptable.

Cementitious Polymer Areas

The primer was applied using a brush/roller method while the spray was used for the topcoat. The coating system used comprised one coat UltraCote 520-020 (Primer) with a recommended dry film thickness (DFT) of $\pm 40\mu\text{m}$ and one coat UltraCote 525A15 red (topcoat) with a recommended DFT of 1mm.

Clay Tile Areas

The coating was applied using a spray method. The coating system used comprised one coat UltraCote 525A15 red (topcoat) with a recommended DFT of 1mm.

Concrete Areas

The concrete primer and Ultraviolet topcoat were applied by means of a brush/roller method while a spray system was used for the intermediate waterproofing system. The coating system comprised one coat Ultraprime 800MT with a recommended DFT of $200\mu\text{m}$, one coat UltraSpray 401-450 / Ultrathane 501-450 (intermediate) with a recommended DFT of 1.5mm and one coat UltraCote 850A15 / Ultrathane 500-211 (UV stable aliphatic topcoat) with a recommended DFT $50-100\mu\text{m}$.

Concrete with Bitumen Residue Areas

The concrete primer and (UV) stable aliphatic topcoat were applied by means of a brush/roller method while a spray system was used for the intermediate waterproofing system. The coating system comprised one coat Bitprime (primer) with a recommended DFT of $200\mu\text{m}$, one coat UltraSpray 400-800M / Ultrathane 500-800M (intermediate) with a recommended DFT of 2-3mm and one coat UltraCote 850A15 / Ultrathane 500-211 (UV stable aliphatic topcoat) with a recommended DFT of $50-100\mu\text{m}$.



Figure 3: The area of the roof with clay tiles and concrete substrate with bitumen after application of the coating/waterproofing systems

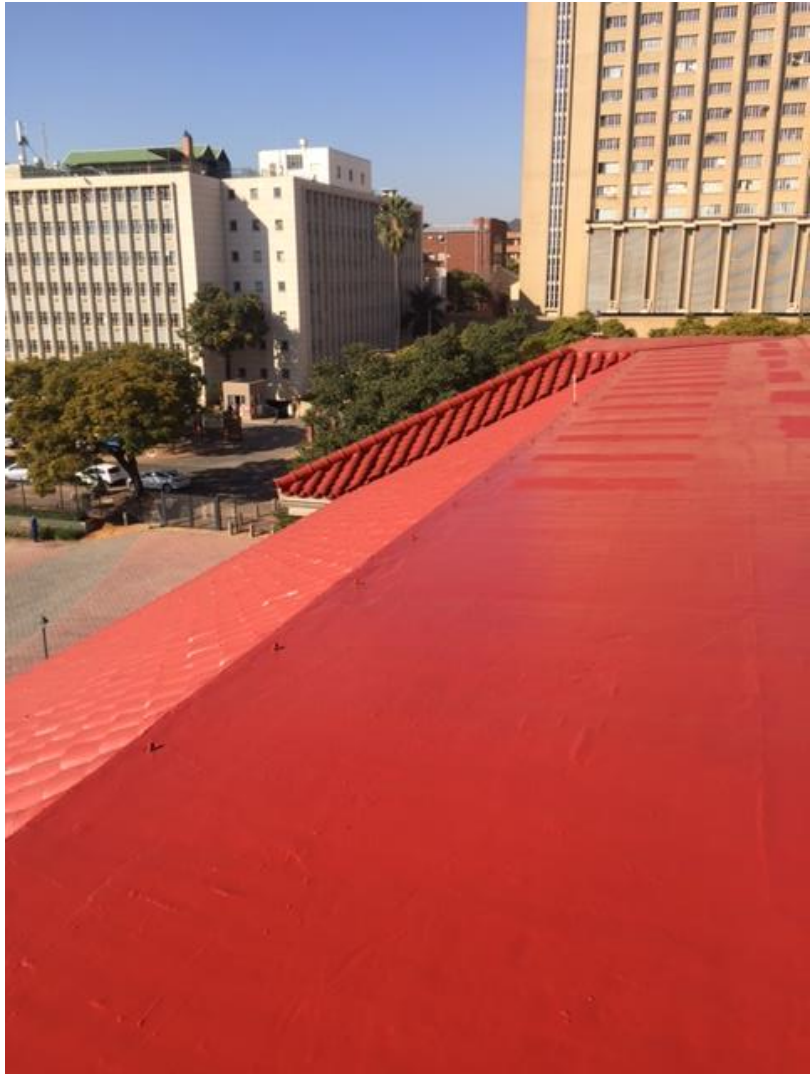


Figure 4: The area of the roof with cementitious polymer on Polystyrene boards and clay tiles after application of the coating/waterproofing systems



Figure 5: The area of the roof with cementitious polymer on Polystyrene boards after application of the coating/waterproofing system