

# PUDLO PremDeck Installation Guide



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## 1-Introduction

PUDLO PremDeck is a highly advanced liquid waterproofing system and provides a robust waterproofing solution for podium deck / suspended slabs, terraces and balconies.

This outline specification document is intended to provide a basic understanding of the system and does not replace sound advice on its components, ancillaries and installation guides. Please consult PUDLO Waterproof Systems prior to the application of the material.

For more information please do hesitate to contact us through the following formats:

- [www.pudlo.com](http://www.pudlo.com)
- [technical@dbgholdings.com](mailto:technical@dbgholdings.com)
- 01954 780 687 (option 1 for sales/technical)



### Note.

*This document is to be used as a guide and is not site specific. PUDLO Waterproof Systems always recommend a site survey is carried out or the end user contacts their key account / specification manager for more information. Where external parties i.e. client / architect / engineer is taking on the design responsibility of the system (where not included in the PUDLO Performance Warranty), all relevant clauses to their own contracts. Nothing contained in this document or any other literature produced by PUDLO Waterproof Systems or on our behalf is to be regarded as constituting a contract binding in law between PUDLO Waterproof Systems / DB Group Holdings Ltd and any customer. PUDLO Waterproof*

*Systems will only enter into a warranty where our performance warranty has been requested or qualifying criteria / approval has been obtained by ourselves.*

*Please refer to limited warranty statement on final page*

## 2-PUDLO PremDeck system

PUDLO PremDeck is a cost effective, seamless cold applied, fully reinforced flexible system for the waterproofing of above ground applications. The system is cold applied and rapidly becomes weather resistant, because of the advance technology within the system the speed of curing will allow access for foot traffic to restricted areas a lot quicker than your standard liquid applied systems. PUDLO PremDeck is perfect for convoluted shapes and awkward detailing.

PUDLO PremDeck is also suitable on both refurbishment and new build applications

## Benefits

- Easy to apply
- Seamless and effective waterproofing system
- Durable finish
- Suited to any size of project
- Quick drying
- Weather resistant
- Choice of colours (contact PUDLO first)
- ISO 9001 quality-controlled product



## Applications

PUDLO PremDeck can be used for the following applications:

- Green roofs
- Warm roofs
- Podium decks
- Suspended slabs
- Terraces
- Balconies
- M&E plant rooms
- Inverted roofs

## 3-Roof Construction

Prior to application of PUDLO PremDeck, please provide consideration to the type of roof construction which the system to be applied on to.

This installation guide will go on to list some of the different types of roofing, but first it is important that for each one the following is considered:

## General application

Firstly, is the roof an existing roof or a new constructed roof? The installation of PUDLO PremDeck should be in accordance with relevant British standards and Eurocodes, regulations from insurance providers and other associations. Please refer to PUDLO PremDeck BBA and supporting literature for more information.

## Falls

Minimum falls recommended by the relevant British Standard code of practice for flat roofs is 1:80. However, a design fall of 1:40 is often adopted to provide construction tolerances. Standing water is not detrimental to PUDLO PremDeck system but if required, existing falls can be increased by using either by a screed or cut to fall insulation. PUDLO PremDeck BBA covers zero falls for completely flat designs.

## Drainage

BS EN 12056-3:2000 Gravity drainage systems inside buildings. Roof drainage, layout and calculations refers to best practice for drainage. PUDLO PremDeck can be incorporated into most standard rainwater outlets.

## Penetrations

PUDLO PremDeck is perfect for sealing pipe penetrations such as soil pipes, stanchions and machinery fixing positions. As with any roof detail, the system should be taken onto the vertical by a minimum 150mm and terminated in a fully weatherproof condition e.g. behind a collar, cowl or mastic sealant

## Substrates

PUDLO PremDeck can be applied to range of different substrates. Including but not limited to concrete, built up felt, asphalt, approved plywood, GRP, PUDLO PremDeck insulation board and single ply. Prior to application we also recommend test sample the area for adhesion test, this applies to single ply, solar reflective paint and unidentifiable coatings / surfaces. Note: some grades e.g. marine ply is not suitable for coating

New plywood decks should be a timber panel to structural grade BS 5268-2:2002 (EN13986 Structural 2+). Please contact PUDLO Waterproof Systems for approved plywood board list.

## Walkways

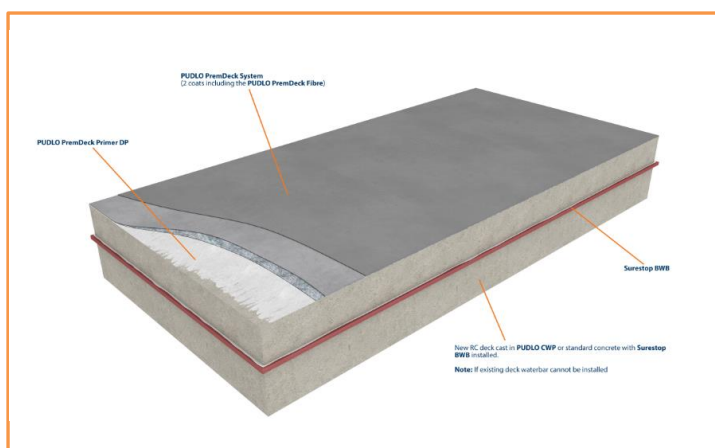
PUDLO PremDeck is also available with anti-slip system for occasional traffic. Note: the system will not be 100% anti-slip but provides greater resistance against icy conditions. Mineral slate chippings are suitable for occasional traffic and is a cost-effective method for creating walkways. Quartz sand is suitable for heavy traffic and is recommended for most balcony / terrace applications

## Un-insulated

Un-insulated application of PUDLO PremDeck is suitable for new or existing projects where insulation is either not required or already present within an existing build-up.

### Features

- New and refurbishment construction (refurbishment then existing build-up might be in too poor of a condition to be retained and may need to be stripped)
- Provides complete waterproofing
- Fast application
- Suitable for roofs, balconies and terraces



## For consideration

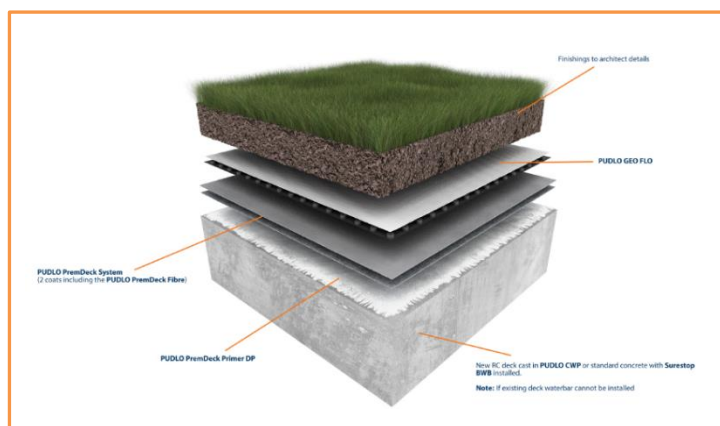
- Surestop BWB must be installed within the construction joints where new RC slab has been designed. Please refer to Surestop section within this document for more information.

## Green Roof

PUDLO PremDeck can be installed following the application of any new waterproofing system on a green roof.

*Note: BBA certificate refers that when used within a buried membrane application such as green roofs, the membrane has an expected lifespan to match the design life of the roof in which it is incorporated.*

## For consideration

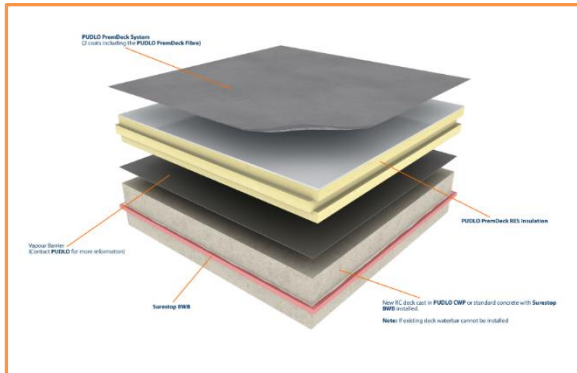


- The installation of a green roof will increase the height of the roof and consideration needs to be considered of raising upstands to accommodate the roof height
- We recommend an inspection is carried out twice per annum to check for maintenance. Check all flashings are functioning as they should
- Please consult with PUDLO Waterproof Systems prior to application of material

## Warm roofs

PUDLO PremDeck can be installed following the application of any new waterproofing system on a warm roof

Warm roofs are suitable for new construction or where an upgrade is required to an existing roof to meet current building regulations. Vapour control layer must always be provided prior to installation of rigid insulation boards and care should be taken to ensure the roof meets the necessary U value. PUDLO PremDeck system allows direct application to an approved PUDLO PremDeck RES insulation board and combined with a fast curing adhesive for the insulation panels. PUDLO PremDeck RES Insulation is also available within tapered systems to provide a solution to both thermal performance and design fall requirements.

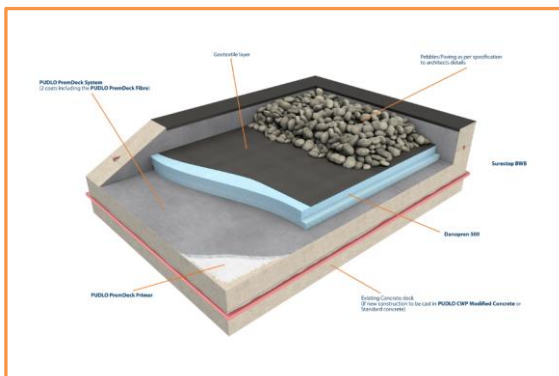


### For consideration

- Please consult with PUDLO Waterproof Systems prior to application of material
- Cut to falls insulation can be provided
- Reduced energy bills

### Inverted Roofs

An inverted roof, also referred to as a 'protected membrane' or 'upside down' roof, is form of flat roof in which the waterproofing layer is beneath the thermal insulation rather than above it. Inverted roofs should be designed to accommodate the ballast loading above it.



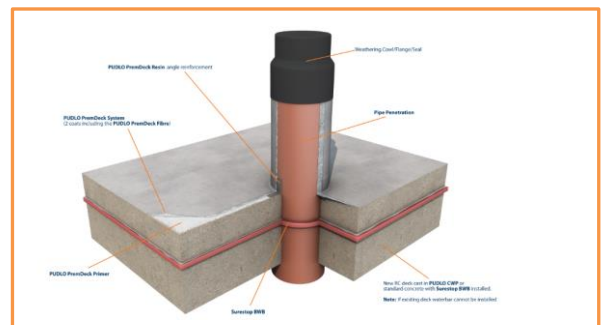
- Please consult with PUDLO Waterproof Systems prior to application of material
- Protection of membrane increases service life of material
- Eliminates fixing / adhesives
- Ballast (can be in form of pebbles or paving)
- Low absorbent insulation board
- Geotextile layer

## 4- Service Penetrations & Rainwater outlets

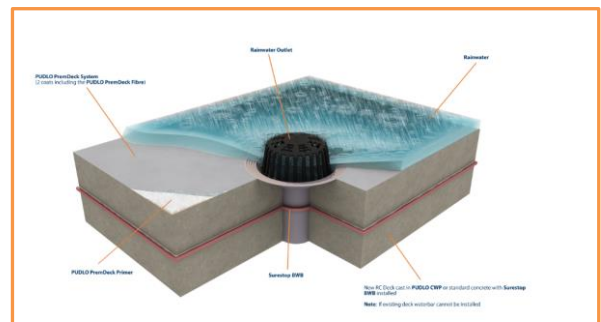
PUDLO PremDeck is an easy system to install where service penetrations and rainwater outlets are present in the design or a new construction build or existing slab. Below are two images for consideration where waterproofing such scenarios is required.

*Note: where new RC slabs are cast, Surestop BWB should be wrapped around each outlet and penetration to stop any migration of water between the pipe and concrete slab.*

### Pipe Penetration Detail



### Rainwater Outlet



## 5- Foot Traffic

PUDLO PremDeck is robust and leading when it comes to resistance to foot traffic. Foot traffic, can be for maintenance or regular foot traffic depending on the specification required by the client. For foot traffic we have two types of application



## PUDLO PremDeck Mineral Finish (Anti Slip)

This method is specified where the roof may have some occasional foot traffic and where anti-slip finishes are required. Typical example of this method of design includes walkways to plant rooms and fire escapes.

## PUDLO PremDeck with Quartz Sand / PremDeck Balcony Sealer (Anti-Slip)

This method is specified mostly for balconies, terraces, walkways or other areas demanding high level of wear and tear. PUDLO PremDeck with Quartz Sand is tough, robust and resistant to impact. This system is also suitable for regular foot traffic.

*Note: PUDLO PremDeck is available in a range of colours for anti-slip usage. They come in either standard finishes or decorative finishes.*

## 6- Application

For optimal performance of the PUDLO PremDeck system it is important that all instructions are carefully followed, and installation is in accordance with the BBA certification.

PUDLO PremDeck system must be installed out a minimum substrate temperature and air temperature of 3°C stable (1°C with use of accelerators), rising to a maximum air temperature of 30°C and substrate temperature of 40°C. The system must not be installed in rain or snow conditions or when relative humidity is above 95%.

*Note: prior to application we recommend that no soil or bulk material is stored to the roof area prior to installation to ensure it is localised overloading does not occur.*

## Surface preparation

It is important that surface preparation is strictly carried out in accordance with our recommendations: these requirements are set out below:

- Substrate must be visibly dry, sound and free from loose materials and contaminants (e.g. moss or algae).
- Areas of fungal growth (mainly for existing roofs) are treated with PUDLO PremDeck Anti-Fungal
- High pressure sand blasting or water jetting may be used to remove loose or flaking materials. However, substrates must be dry prior to application of PUDLO PremDeck Resin
- Damaged areas must be remediated prior to application of system
- Deck must be free from sharp objects, protrusions, fixings or concrete nibs
- Gutters and outlets must be checked to ensure they are dry and clear from all debris
- If application of material is on top of a metal decking, this must be treated with PUDLO PremDeck T-Wash. The application should be 15m<sup>2</sup> per litre. The wash is allowed to react, and the surface conversion is indicated by black deposits. All residue must be washed off and dried prior to application of PUDLO PremDeck Primer M.
- PUDLO PremDeck M is applied at a rate of 50 to 150ml/m<sup>2</sup>. The primer should be left to dry (approx. 15-30 mins after application) before coating. If left longer than 24 hours another application will be required

## PUDLO PremDeck Resin Application

PUDLO PremDeck is mixed onsite by adding a catalyst to the resin in the correct proportions. These proportions are based on surface / air temperatures and stirred in accordance with mixing instructions. Note: resin temperature can also play a part in performance if left on site overnight or allowed to cool down to below zero. Please ensure resin is stored in ambient conditions.

Please refer to table 1.

Table 1

PUDLO PremDeck Resin & PUDLO PremDeck Catalyst		
Temperature	PUDLO PremDeck Catalyst Addition Rate	PUDLO PremDeck Catalyst Scoops per litre
3-10°C	4%	4 Scoops
10-15°C	3%	4 Scoops
15-20°C	2/3%	3 Scoops
20-30°C	2%	2 Scoops

\*Product accelerators must be used for applications within this temperature range

The application of PUDLO PremDeck must be done in two coats. Depending on the substrate, the first coat of resin is applied at the rates specified in table 2. Approximately 2/3 of the required liquid material is applied to the substrate before rolling out the fibreglass matting. Work the resin through the matting until consolidated and apply the final third of material to achieve a closed, pinhole-free surface. Where lengths of matting over-lap, always ensure a straight edge is laid over a feathered edge to a width of 50mm. Allow the first coat to cure and then inspect for misses, pinholes or other defects and add more material as required. Sand down any protruding fibres to achieve a smooth surface. Once the first coat has cured it can accept the second coat, which is always applied at 0.5 ltr/m<sup>2</sup>. The second coat should be applied as soon as possible however if it has not been applied within 7 days of the first coat then the surface will need to be thoroughly wiped with acetone before applying. If longer than 7 days consult PUDLO tech services.

Once PUDLO PremDeck Fibre has been laid into position, the second coat of PUDLO PremDeck Resin must be applied as soon as practically possible to do so. However, the maximum period between coats is seven days, after which it is necessary to clean the surface with PUDLO PremDeck Acetone allowing a further seven days, application time. The coverage rate for the coat is 0.5 litres per m<sup>2</sup>

### New Surfaces

Table 2

Substrate	Concrete / Screed	Plywood (approved)	OSB3	PUDLO PremDeck RES Insulation	PUDLO PremDeck RES Balcony insulation
Primer	Prem Deck DP	PremDeck DP	PremDeck DP	No Primer	PremDeck DP
1 <sup>st</sup> coat rate	1.3 - 2.0 l/m <sup>2</sup>	1.3 - 1.5 l/m <sup>2</sup>	1.3 - 1.5 l/m <sup>2</sup>	1.3 - 1.5 l/m <sup>2</sup>	1.3 - 1.5 l/m <sup>2</sup>
2 <sup>nd</sup> coat rate	0.5 l/m <sup>2</sup>	0.5 l/m <sup>2</sup>	0.5 l/m <sup>2</sup>	0.5 l/m <sup>2</sup>	0.5 l/m <sup>2</sup>

### Existing Surfaces

Substrate	Felt	Asphalt	Single-Ply	GRP / Liquid Roofing System	Metal (detailing work)
Primer	Prem Deck DP	Prem Deck DP	Adhesion tests	No Primer Liquid = Adhesion Tests	PUDLO Prem Deck M
1 <sup>st</sup> coat rate	1.3 - 2.0 l/m <sup>2</sup>	1.3 - 2.0 l/m <sup>2</sup>	1.3 - 1.5 l/m <sup>2</sup>	1.3 - 1.5 l/m <sup>2</sup>	1.3 - 1.5 l/m <sup>2</sup>
2 <sup>nd</sup> coat rate	0.5 l/m <sup>2</sup>	0.5 l/m <sup>2</sup>	0.5 l/m <sup>2</sup>	0.5 l/m <sup>2</sup>	0.5 l/m <sup>2</sup>





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## Anti-Slip Surfaces - Mineral Slate Chipping (Occasional Foot Traffic)

Apply full PUDLO PremDeck waterproofing system before masking off designated area requiring anti-slip. Apply additional coat of PUDLO PremDeck Resin at a minimum coverage rate of 0.5Litres/m<sup>2</sup> and whilst wet broadcast clean dried mineral slate grit at a minimum coverage rate of 2.5kg/m<sup>2</sup>. Once cured remove loose grit. Approximate retained grit will be 1.5kg/m<sup>2</sup> and the remaining grit may be recovered for future use

## Anti-Slip Surfaces - Quartz Sand & PUDLO PremDeck Balcony Sealer (Regular / Heavy Foot Traffic)

Apply full PUDLO PremDeck waterproofing system before masking off designated area requiring anti-slip. Apply additional coat of PUDLO PremDeck Resin at a minimum coverage rate of 0.5Litres/m<sup>2</sup> and whilst wet broadcast clean dried quartz sand (0.7 - 1.2mm) at an approximate coverage rate of 4.0kg/m<sup>2</sup>. Once cured remove loose sand. Approximate finished coverage rate of sand will be 2.5kg/m<sup>2</sup> and the remaining 1.5kg may be recovered for future use.

Apply PUDLO PremDeck Balcony Sealer using a 225mm Medium Pile Roller at a minimum coverage rate of 0.6Litres/m<sup>2</sup> (1.67m<sup>2</sup>/Litre). Allow to cure.

NB: If PUDLO PremDeck Balcony Sealer is to be applied to un-gritted upstands then the PUDLO PremDeck membrane must be thoroughly wiped with acetone prior to its application. The minimum coverage rate of PUDLO PremDeck Balcony Sealer to un-gritted surfaces is 0.25Litres/m<sup>2</sup> (4.0m<sup>2</sup>/Litre).

## Movement Joints

Joints subjected to excessive movement may require the use of an alternative system. Please contact PUDLO Waterproof Systems for more information or MPS Concrete Solutions Limited as the installer for details.

## Repair

In the event minor damage occurs to the

system, it can be rectified by cleaning back to un-weathered material, reactivating the surface and applying two coat PUDLO PremDeck system to the damaged area at the total application rated stated in the tables above

## 7- Installers Network

PUDLO Waterproof Systems have a vast of network of specialist installers who are fully trained on the application of PUDLO PremDeck. Confirmation of specialist installers is available by contacting PUDLO Waterproof Systems on 01954 780 687 (option 1) or email [sales@pudlo.com](mailto:sales@pudlo.com)

Upon completion of works, a final inspection shall be carried out by the specialist installer prior to installation warranty being issued. PUDLO Waterproof System usually do not include PUDLO PremDeck within its performance warranties nor do we allow the ground worker to install the material. We are more than happy to discuss your project requirements with you.

## 8- Product Information

PUDLO PremDeck is fully BBA accredited and is an acceptable system where insurances houses are involved on the scheme. For more information please refer to the following reference points:

- BBA certificate
- PUDLO PremDeck Installation Guide
- PUDLO PremDeck TDS
- PUDLO PremDeck MSDS

## Risk Assessment

Prior to any application of our waterproofing liquid, please carry out necessary risk assessments (including COSHH assessments). Method statements are to be carried out prior to commencement of works

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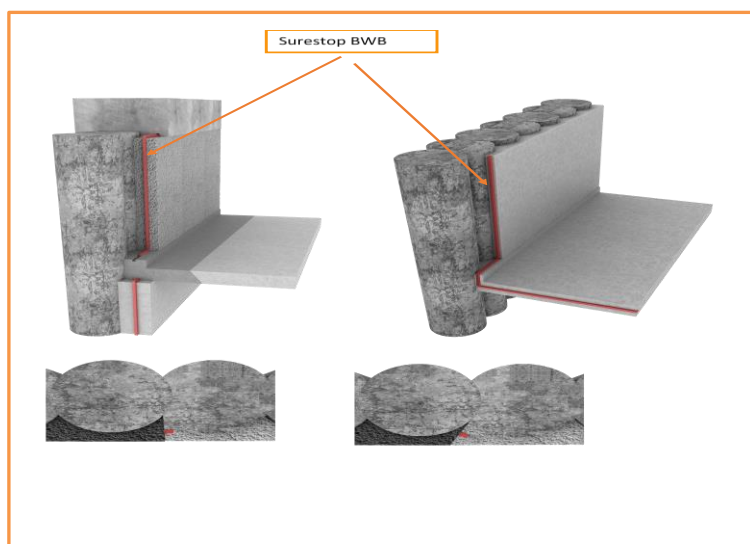
*Note: we strongly advise the applicator applies a test sample to an area of the substrate first to ensure compatibility*

## 9- Surestop BWB (new RC applications)

Surestop BWB is a red hydrophilic strip made of natural sodium bentonite for sealing of construction joints in cast-in place concrete. Surestop BWB expands over its original dry volume on contact with water to form a positive seal.

Surestop BWB is supplied in 25mm x 20mm x 5m coils in boxes (6 x 5 metre rolls per box). For fixing instructions please refer to:

- Surestop BWB BBA certificate
- Surestop BWB product data sheet
- The PUDLO System Concrete Standards & Best Practice literature
- Typical Details (available on request from your Technical Manager or PUDLO Site Support Team representative).



## Limited Warranty

PUDLO PremDeck should only be installed once the site ground conditions are suitable to receive the waterproofing product.

PUDLO PremDeck is designed to be used on most substrates and is **NOT** designed to waterproof against hydrostatic pressure as a single system or movement / expansion joints. Please consult PUDLO for special installation guidelines. The information and data contained herein is believed to be accurate and reliable. Specifications and other information contained within this 'guide' supersede all previously printed material and is subject to change without prior notice. Manufacturer's warranty of the installed system is available. Please contact PUDLO for terms and limitations. All goods sold by the seller are warranted to be free from defects in material and workmanship. The warranty is in lieu of and excludes all other warranties not expressly set forth herein. Seller shall not be liable for incidental or consequential losses, damages or expenses, directly or indirectly arising from the sale, handling or use of goods, or from any other cause relating thereto, and seller's liability hereunder in any case is expressly limited to the replacement (in the form originally shipped) of goods not complying with this agreement or at seller's election, to the repayment of, or crediting buyer with, an amount equal to the purchase price of such goods, whether such claims are for breach of warranty or negligence. Any claim by buyer with reference to the goods sold hereunder for any cause shall be deemed waived by buyer unless submitted to seller in writing within 30 days from the date buyer discovered or should have discovered any claimed breach.

Materials should be inspected and tested by purchaser prior to their use if product quality is subject to verification after shipment. Performance guarantees are normally supplied by the applicator of the PUDLO PremDeck System