

## **MeshProp® Technical Data Sheet**

**A high strength reinforcement stool for larger elevation heights and heavier loads.**



### **DESCRIPTION**

An easily foldable high strength reinforcement stool for numerous applications (please refer to next section). This product is walkable, durable, stable, and light with minimal impact. MeshProp® caters for heights of 65mm to 145mm in elevation.

\* Note the dimensions provided are from base to trough of top ridge profile.

### **ADVANTAGES**

- High load capacity
- More durable
- High material strength
- Zinc-Alu material
- Increased stability
- No DPC/DPM punching or piercing
- Allows concrete to freely flow through product
- High bearing capacity



Based on test results from the load tests performed by the CSIR, all four profiles of the MeshProp® series comply with the prescribed requirements of BS 7973-1 annex A. The standard requires the permanent deformation to be less than 1 [mm], upon subsequent removal of a load of 1000 [N] for a duration of 10 minutes.

### **TYPICAL APPLICATIONS**

This product can be used in various structural elements in construction such as; ground floor slabs, pad foundations, rafts, strip footings, and suspended slabs.

### **FIXING/FOLDING THE PRODUCT**

For directions on fixing the product, please follow the instructions as described in the instruction manual which can be found on our website or made available by a Struksol representative.

### **APPLICATION DIRECTIONS**

#### **Surface Preparation**

Once the Substrate is prepared by the applicable party, the MeshProp® can be subsequently applied on top of either plain compacted ground, or on top of the Damp Proof Course/Membrane.

#### **Product Placement**

Once the MeshProp® size has been selected for your type of floor or foundation, the product can be placed in either a uniform, equidistant fashion or staggered, across the area desired to elevate reinforcement. It is recommended that the

product is placed equidistant for heavier load carrying applications and could be staggered on much lighter load carrying applications if need be. Please refer to the safe working load table below to efficiently place your MeshProp® over the desired area.

### Securing

The MeshProp® can be fixed onto either mesh/fabric reinforcement or conventional reinforcement with fixing wire through the penetrations provided, to secure the product in position.

### PROPERTIES

The material properties of the parent material listed below are developed to meet the requirements of the ASTM A792/A792M – Standard specification for steel sheet, Aluminium-Zinc Alloy-coated by hot-dipped process.

MATERIAL PROPERTIES	
<b>Specification:</b>	ASTM A792/A792M SS550
<b>Material:</b>	Hot dip 55% Aluminium-Zinc Alloy-coated steel coil.
<b>Hardness</b>	92.8 HRB
<b>Yield Strength:</b>	600 N/mm <sup>2</sup>
<b>Tensile Strength:</b>	600 N/mm <sup>2</sup>
<b>Elongation:</b>	12%
<b>AL-ZINC Coating:</b>	150g/m <sup>2</sup>
<b>Steel grade:</b>	SS-550

### LOAD TABLE

Mechanical testing was carried out on each of the profiles in the MeshProp® series with 3 test samples each. The below safe working load table is based on the average of the test results for each product in the series. The mechanical tests carried out were to determine the maximum load carrying capacity before first yield.

MeshProp® Product:	Per 1 Unit:	Maximum allowable UDL Capacity (kN/m <sup>2</sup> ) - Units per square meter		
	Maximum safe-working load capacity per product:	1m x 1m spacing (maximum spacing as per BS 7973-1)- 4 units	0.5m x 0.5m spacing - 9 units	0.25m x 0.25m spacing - 25 units
<b>MeshProp® 65</b>	3kN - 300kg	12 (kN/m <sup>2</sup> )	27 (kN/m <sup>2</sup> )	75 (kN/m <sup>2</sup> )
<b>MeshProp® 85</b>	2kN - 200kg	8 (kN/m <sup>2</sup> )	18 (kN/m <sup>2</sup> )	50 (kN/m <sup>2</sup> )
<b>MeshProp® 115</b>	1.5kN - 150kg	6 (kN/m <sup>2</sup> )	13.5 (kN/m <sup>2</sup> )	37.5 (kN/m <sup>2</sup> )
<b>MeshProp® 145</b>	1.5kN - 150kg	6 (kN/m <sup>2</sup> )	13.5 (kN/m <sup>2</sup> )	37.5 (kN/m <sup>2</sup> )

Note: It is recommended that spacing of the MeshProp® product be no further than 1m apart as per BS 7973.

## **STORAGE**

It is preferable that the MeshProp® is stored under cover, out of direct sunlight and protected from extremes of temperatures, when stored for prolonged periods of time. Failure to comply with the recommended storage conditions may result in premature deterioration of the product or packaging. For specific storage advice consult Struksol Technical Services Department.

## **SAFETY PRECAUTIONS**

As with all construction products that have sharp edges, care should be taken during folding the MeshProp® device, use and storage to avoid contact with eyes, mouth, and skin to prevent injury. It is advised that gloves are worn whilst fixing or folding the product. If accidentally cut, seek immediate medical attention. Keep away from children and animals. Dispose of packaging according to local regulations.

## **NOTES**

Field service where provided does not constitute supervisory responsibility. Suggestions made by Struksol either orally or in writing may be followed, modified, or rejected by the owner, engineer or contractor since they, and not Struksol, are responsible for carrying out procedures appropriate to a specific application in varying conditions.

## **QUALITY AND CARE**

All products sold under Struksol are manufactured under a management system independently certified to conform to the requirements of the quality, environmental and occupational health & safety standards ISO 9001.

## **STATEMENT OF RESPONSIBILITY**

- i. Struksol takes no responsibility for the applicability of the test conditions to real life operating characteristics of the product.
- ii. Struksol cannot be held responsible for any failure or consequential damage resulting from such failure.
- iii. The technical information and application advice given in this Struksol publication are based on the present state of our best scientific and practical knowledge. As the information herein is of a general nature, no assumption can be made as to a product's suitability for a particular use or application and no warranty as to its accuracy, reliability, or completeness either expressed or implied is given other than those required by law. The user is responsible for checking the suitability of products for their intended use.

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\* Properties listed and load capacities are based on laboratory-controlled tests.

\* Patent Pending: 2021/07020