

# LINEAR

### SHORT SYSTEM DESCRIPTION

The Luxalon® 70U ceiling system consists of box shaped, 70 mm wide steel or aluminium panels (1) which can be easily clipped on the 70U carrier (2). The panels are made to measure and can be supplied in any length up to 6000 mm. Panels can be joined by using the panel splice (5).

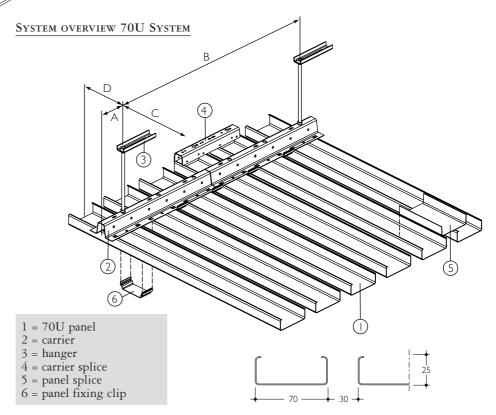
Fixing clips (6) are fitted on the carrier between the panels in order to fully secure the panels.

The panel carrier (2) is black, made of 1.0 mm thick stove enamelled steel or 0.95 mm thick stove enamelled aluminium and is provided with prongs to accommodate the panels in a module of 100 mm. Carriers have a standard length of 5000 mm and are connected by using the carrier splice (4).

The Luxalon® standard range of edge profiles can be used as perimeters.

### PRACTICAL APPLICATIONS

- The system with steel panels and carriers is purpose designed to withstand the impact of all types of ball sports which makes the system perfectly suitable for applications in sporthalls. The Luxalon® 70U ceiling in steel, complies with the stringent standard DIN 18032, which contains the requirements for sporthall ceilings.
- Aluminium panels in combination with aluminium carriers make the system suitable for swimming pools and exterior applications.
- Panel length made to measure up to 6000 mm, allowing for swift installation and reducing the need for joining the panels to a minimum.
- The panels and clips can be easily removed and replaced by hand allowing easy and full access to services and installations in the plenum.
- Open joint systems for all applications requiring up to 30% open area (for sound absorption properties).
- Flexible carriers are available in order to create a curved ceiling.

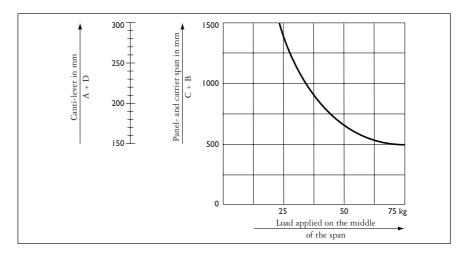


# MAXIMUM SPANS

1. Maximum spans for a standard ceiling which is not submitted to any additional

Panel	Carrier span (mm)				Panel span (mm)		
type	Steel 1.0		Alu 0.95				
70U	A	В	A	В	С	D	
Alu 0.8	300	1700	300	1350	1500	150	
Steel 0.8	300	1400	N.A.	N.A.	1500	150	

2. Maximum spans for a 70U ceiling applied in sporthalls and submitted to ballloads, are shown in the graphic below. The spans depend on the loads which are applied on the ceiling. The results are based on the standard DIN 18032 test in which a ball is thrown against the ceiling over a distance of 4 m in an angle of 60°.

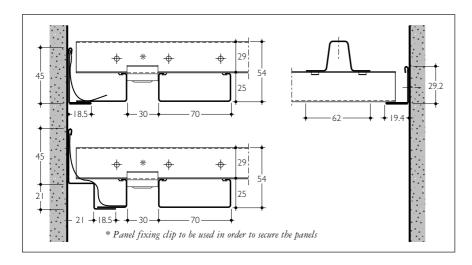


# DIMENSIONS & WEIGHTS

Panel	Width	Height	Module	Min.	Max.	Weight panels & carriers/m <sup>2*</sup>		
70 <b>U</b>	(mm)	(mm)	(mm)	length	length	Steel carrier	Alu. carrier	
Alu 0.8	70	25	100	1000	6000	3.27	2.9	
Steel 0.8	70	25	100	1000	6000	8.3	N.A.	

<sup>\*</sup> Based on panels installed on 3 or more carriers

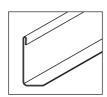
### STANDARD CONSTRUCTION DETAILS



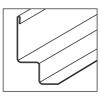
### EDGE PROFILES







Wall L-profile Fe/Alu (45 x 18.5)



Wall W-profile Fe/Alu (45 x 21 x 21 x 18.5)

# Material Requirement per $M^2$

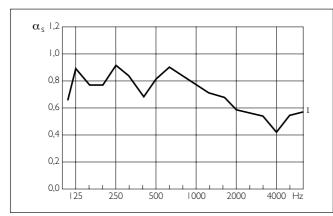
	Unit	70U ceiling system
Panels	lm	10
Carriers	lm	0.67
Carrier splice	pcs	0.13
Suspension	pcs	0.89
Panel fixing clips	pcs	6.7

Edge profiles and other accessories depend on individual project requirements Figures are based on maximum spans

# ACOUSTIC PERFORMANCE

In order to improve interior sound control, acoustic pads can be laid on the Luxalon® 70U panels, between the carriers.

# - SOUND ABSORPTION DATA



 $\alpha s$  = soundabsorption degree: an absorption of 1.0 indicates a 100% absorption of sound.

### PLENUM ACCESSIBILITY

The Luxalon® 70U system allows for easy demounting of the panels. Installed on a visually hidden suspension system, each panel and clip can be easily removed and replaced by hand allowing easy and full access to services and installations in the plenum.

### MATERIAL SPECIFICATIONS

### - BASE MATERIAL

Luxalon® 70U panels are rollformed from 0.8 mm thick prepainted stove enamelled aluminium strip or from 0.8 mm thick prepainted stove enamelled galvanised steel strip. All aluminium and steel products can be recycled for the full 100%, requiring very little energy.

### - COATING

The tough and durable polyester finish in a nominal thickness of approximately 20 microns, is stove enamelled in a continuous coil-coating process ensuring uniform coating thickness and absolute adhesion. The aluminium panels are also available with Luxacote® finish.

- Luxalon® colour Range The Luxalon® 70U system is standard available in white. See Luxalon® colour chart. Any other (RAL or NCS) colour is available on request.

# - FIRE BEHAVIOUR

Luxalon® metal suspended ceilings are classified incombustible and will therefore not contribute to possible fires. When ceilings however need to protect the structural integrity of the building, Luxalon® ceilings offer a range of practical and tested solutions with regards to fire stability. Further information is available on request.

Freq. Hz.	125	250	500	1000	2000	4000
Curve 1	0.89	0.92	0.82	0.78	0.59	0.42

### - CURVE 1

Plain panels, open joints 30 mm, plenum depth 200 mm, with additional 25 mm thick mineral wool pads with a density of approx. 55 kg/m³. The sound absorption curve has been taken from test report no. MA 82 of acoustic consulting institute Ir. V.M.A. Peutz, Nijmegen (The Netherlands).



### LUXALON® 70U SYSTEM SPECIFICATION

### PART 1. 70U SYSTEM GENERAL

### 1.1 INTRODUCTION

Supply and fix Luxalon® 70U system as manufactured by Hunter Douglas Architectural Products.

### 1.2 DESCRIPTION OF THE SYSTEM

The system will consist of linear box shaped panels fixed to an adjustable suspension system which allows for individual panels to be removed by hand. System to feature open joints between the panels.

### PART 2. PRODUCT

\_\_\_\_\_  $m^2$  Luxalon® 70U ceiling, featuring a 30 mm joint and consisting of:

### 2.1 PANELS

Panels, 70 mm wide, 25 mm deep, to be rollformed from 0.8 mm thick stove enamelled aluminium strip or from 0.8 mm thick stove enamelled galvanised steel strip, plain. Optionally acoustic pads can be laid on the panels in order to improve acoustical performance.

- Aluminium panels to be manufactured from prepainted, stove enamelled aluminium, alloy EN-AW-3005 or equivalent (according to EN 1396 and ECCA).
- Steel panels to be manufactured from prepainted, stove enamelled steel.

Panels have a length of \_\_\_\_\_ mm (manufacturer availability 1000-6000 mm and on request 250-1000 mm and > 6000 mm). Panels to be coupled in longitudinal direction by means of panel splices.

# 2.2 SUSPENSION

Rows of 1.0 Fe/0.95 Alu rollformed carriers shall be installed at \_\_\_\_\_\_ centre on centre by means of adjustable suspensions, of suitable strength and rigidity to provide impact resistance if required, at a distance of \_\_\_\_\_\_, centre on centre. Carriers shall be joined by means of carrier splices. Carriers provided with prongs to hold panels in a standard module of 100 mm.

Fixing clips made of stove enamelled aluminium, clipped on to the panel carrier between the panels in order to secure the panels.

# PART 3. ADDITIONAL SPECIFICATIONS

# 3.1 PERIMETER PROFILES

- Wall L-profile 29.2 x 19.4 mm made of 0.5 mm thick aluminium
- Wall L-profile 45 x 18.5 mm made of 0.8 mm thick steel or aluminium
- Wall W-profile 45 x 21 x 21 x 18.5 mm made of 0.8 mm thick steel or aluminium

# 3.2 Acoustics

The installer can place individually P.E. wrapped mineral wool pads on top of the panels.

### 3.3 COATING

Architect will make a colour selection from the standard Hunter Douglas colour range for Luxalon® 70U panels code no. \_\_\_\_\_\_ or a special colour will be made to match.

The coating will consist of a tough and durable polyester finish in nominal thickness of approximately 20 microns, applied in a continuous coilcoating process ensuring uniform coating and absolute adhesion.

For exterior and swimming pool applications the Luxacote® finish is recommended. The Luxacote® coating will consist of a tough and durable 3-layer polyurethane finish in a nominal thickness of approximately 30 microns, applied in a continuous coil-coating process. The 'Anorcoat' pre-treatment, the primer, the colour coating and the transparent topcoat are fully integrated during this process.

## 3.4 INSTALLATION

All materials shall be installed in strict compliance with all local codes, ordinances and manufacturers recommandations including specific additional requirements as may be called for in the specifications or shown on the drawings.





