

# 7100 TERMINAL

DESIGN BY  
PROF. JØRGEN KASTHOLM

Its architectonic design and its technical perfection turn this series into a bench seating system of extraordinary versatility. The design is founded on the principle of territoriality, defining each seat separately through gently curved seat shells. A highly successful series in the market segments Airport and Public Seating, with thousands of seat units installed worldwide.



## CONTENT

Basic finishes	2
Variations	4
Accessories	6
Construction and materials	8
Finishes	9
Dimensions	10
Fire Prevention	16
Quality	17
Sustainability	18
References	19



The Danish-born Jørgen Kastholm was trained as an artist blacksmith before studying architecture and interior design. From 1961, he established himself internationally with his minimalistic furniture designs. In 1969, he was awarded the German design prize "Gute Form", winning many more in his career. From 1975 until 1996, he began lecturing as assistant professor at the University Wuppertal, where he was subsequently appointed professor. He returned to Denmark where he passed away in 2007.

# BASIC FINISHES



## 2, 3, 4 SEATER STOOL BENCH



Perforated steel seat

7100/0



Sheet steel seat, upholstered seat pad

7130/0



## 2, 3, 4 SEATER BENCH



Perforated steel seat shell

7100/5



Perforated steel seat shell, upholstered seat/back pad

7130/5

## BENCH WITH HIGH BACK AND FOOTSTOOL



Available on request



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## METAL SEAT SHELL / SEAT

A series made of pure metal. A hard-wearing and heavy-duty bench, ideally suited for highly-frequented contract environments. The anatomically designed sheet steel seats resp. the perforated steel seat shells ensure an ergonomic comfort.



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## SEAT SHELL / SEAT WITH UPHOLSTERED PADS

Stool bench with sheet steel seat. Bench with perforated steel seat shell. Upon request, the comfort level of these variations can be increased with upholstered pads. Available either with separate upholstered seat/back pad or seat shell pad.



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## SEAT SHELL WITH PU FOAMED PADS

The benches featuring a seat shell are also available with polyurethane (PU) seat and back pads. The polyurethane surface is lightly grained.



# VARIATIONS

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2 SEATER BENCH WITH PERFORATED STEEL SEAT SHELL  
WITHOUT ARMS (7100/5)



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4 SEATER BENCH WITH UPHOLSTERED PADS  
WITHOUT ARMS (7130/5)



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3 SEATER BENCH WITH PU PADS AND END ARMS



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4 SEATER BENCH WITH PERFORATED STEEL SEAT SHELL  
AND END AND INTERMEDIATE ARMS (7100/5)



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3 SEATER BENCH WITH PERFORATED STEEL SEAT SHELL  
AND TOP IN THE MIDDLE INSTEAD OF SEAT (7100/5)



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4 SEATER BENCH WITH PU PADS, SIDE TOPS AND END ARMS



# ACCESSORIES

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## PRM SEATING

For passengers with reduced mobility, it is possible to raise the seat height of one or more seats within a bench row/configuration by 5 cm or more through the use of spacers. The stable arms provide extra support, facilitating taking a seat or getting up. These benches meet all the requirements of the EU regulation No. 1107/2006 which, among other things, regulates the availability of appropriate seating for passengers with reduced mobility.

PRM = passengers with reduced mobility



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## BACK TO BACK CONNECTION

Distance bar to connect the stretcher bars.



Double-ended pedestals to reduce the contact points with the floor.



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## ANGLE CONNECTION

Extension of stretcher bar and hinge part with corner top for bench connection in any angle between 90° and 270°.



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## STABILITY

- Height adjustable plastic glides, black
- Height adjustable plastic glides, nonskid, black
- Wall spacer
- Floor fixation elements, invisibly integrated in pedestal/glides



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## POWER & DATA

- Cable duct running along the side of the pedestals
- Cable duct attached to the stretcher bar



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Socket unit/double socket between two seats. Country-specific power outlets or double USB are available.



# CONSTRUCTION AND MATERIALS

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## MODULAR CONSTRUCTION

Stretcher bar construction for 2 up to 6 seats. Endless row connection in straight line or in any angle between 90° and 270° via round top on a hinge part.

## FRAME

- Stable stretcher bar made of square tubular steel
- Aluminium die-cast pedestals with glides
- Aluminium die-cast end and intermediate arms

## TOPS

- Full core material HPL black, low flammability, thickness 16 mm

## SEAT AND BACK

- Ergonomically shaped, sheet steel/perforated steel seat, waterfall front seat edge. Upholstered seat pads are optional (stool bench)
- Ergonomically shaped, perforated steel seat shell, waterfall front seat edge. Upholstered seat/back pads, PU foamed seat/back pads are optional (bench)
- Steel side strips with rounded edges, powder coated or chrome
- Seat/seat shell screwed to the stretcher bar via steel supports

## CLEANING, RETROFITTING, REPLACEMENT

- Seat and back with gap in between for easy cleaning
- PRM seats and arms can be easily retrofitted
- Upholstered pads can be replaced without difficulty





# FINISHES

- Powder coated sheet steel/perforated steel seat (stool bench)
- Powder coated perforated steel seat shell (bench)
- Upholstered seat/back pads acc. to our standard collection
- Grained PU foam, black
- Powder coated stretcher bar/side rails acc. to our standard collection
- Powder coated aluminium legs/arms acc. to our standard collection, polished or bright chrome aluminium
- Full core material bench top HPL black, low flammability, black lipping



Powder coated aluminium, polished or bright chrome aluminium



## PU



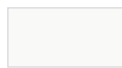
black

## LAMINATE HPL



black  
0901-60  
for bench tops

## POWDER COATING



RAL 9003  
signal white



RAL 9006  
white aluminium  
(metallic effect)



silver 98  
(metallic effect)



DB 703  
iron mica



RAL 9005  
jet black



silk

# DIMENSIONS

## STOOL BENCHES

### WEIGHTS

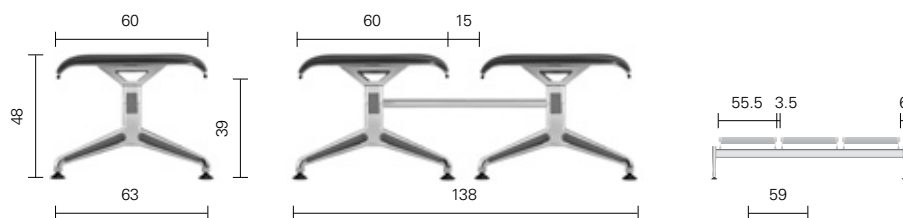
- 1 seat: approx. 4 kg
- 1 supporting pedestal: 4 kg
- Stretcher bar: 4.5 kg/m
- 1 upholstered seat pad: approx. 2 kg

### DIMENSIONS OF THE STOOL BENCHES

- Length of the stretcher bar  
2 seater stool bench: 128 cm  
3 seater stool bench: 188 cm  
4 seater stool bench: 248 cm  
5 seater stool bench: 296 cm  
6 seater stool bench: 362 cm  
The glides stick out by 1.5 cm;  
add 2 x 1.5 cm to get overall dimensions  
(except for 5 seater bench: dimensions  
plus 2 x 0.5 cm)
- Stool benches cannot be stacked
- Max. 4 seats can be linked without an additional supporting pedestal

### CONTINUOUS ROW CONNECTION ON REQUEST

- Per seat 55.5 cm
- Per transition 3.5 cm
- Overlap per exterior side part amounts to 6 cm (pedestal is mounted on the outside)
- Overlap per exterior side part 2.75 cm (pedestal between 2 seats)
- The glides stick out by 1.5 cm on each side



## WITH RECTANGULAR TOP 55 X 53 CM



## BENCHES

### WEIGHTS

- 1 seat: approx. 10 kg
- 1 supporting pedestal: 4 kg
- 1 arm: 1.5 kg
- Stretcher bar: 4.5 kg/m
- Upholstered seat pad: approx. 2 kg

### ARMS

- The length of the bench is not extended when adding end arms
- except for 5 seater benches plus 3.5 cm per end arm
- per intermediate arm plus 5 cm

### CENTER TO CENTER

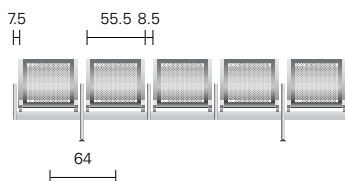
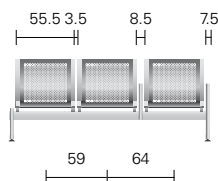
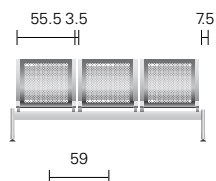
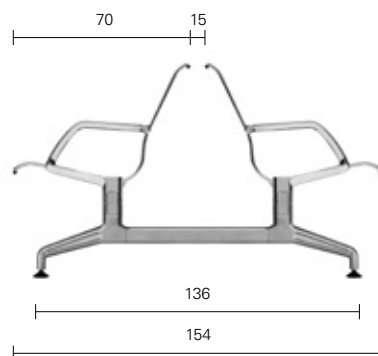
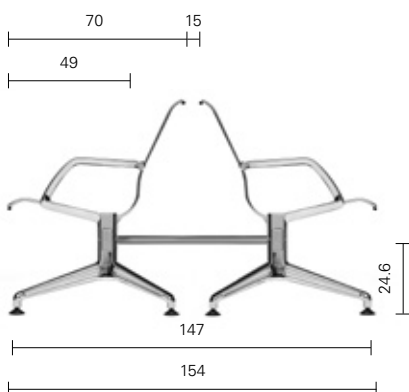
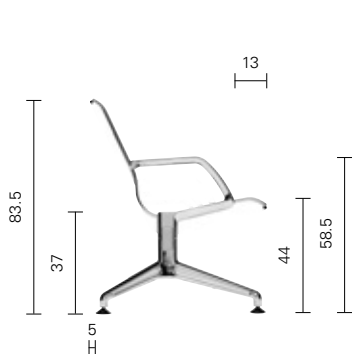
- Without intermediate arm 59 cm
- With intermediate arm 64 cm

### DIMENSIONS OF THE BENCHES

- Length of the stretcher bar
  - 1 seater bench: 67 cm
  - 2 seater bench: 126 cm
  - 3 seater bench: 185 cm
  - 4 seater bench: 244 cm
  - 5 seater bench: 296 cm
  - 6 seater bench: 362 cm
- The glides stick out by 1.5 cm; add 2 x 1.5 cm to get overall dimensions (except for 5 seater bench)
- Benches cannot be stacked
- Max. 4 seats can be linked without an additional supporting pedestal

### CONTINUOUS ROW CONNECTION ON REQUEST

- Per seat 55.5 cm
- Per transition 3.5 cm
- Overlap per exterior side part amounts to 6 cm (pedestal is mounted on the outside)
- Overlap per exterior side part 3 cm (pedestal between 2 seats)
- The glides stick out by 1.5 cm on each side



Plus 3.5 cm per end arm (only 5 seater benches)

# DIMENSIONS

## BENCH WITH HIGH BACK AND FOOTSTOOL

### AVAILABLE ON REQUEST

- Featuring a high back and – for easy floor cleaning – fold-up footstool

### WEIGHTS

- Headrest: 4 kg
- Footstool: approx. 8 kg



## TOPS

### RECTANGULAR TOP INSTEAD OF SEAT

- Dimensions 55 x 53 cm
- When used as an intermediate top, the bench's dimensions remain unchanged

### RECTANGULAR TOP

- Dimensions 30 x 60 cm

### AS EXTERIOR TOP

- On extended stretcher bar with end arm, the bench's width is increased by 33 cm
- On extended stretcher bar without end arm, the bench's width is increased by 27 cm

### AS INTERMEDIATE TOP

- The bench's external dimension is increased by 32 cm

### OVAL TOP

- Dimensions 45 x 60 cm

### AS EXTERIOR TOP

- On extended stretcher bar with end arm, the bench's width is increased by 48 cm
- On extended stretcher bar without end arm, the bench's width is increased by 42 cm

### AS INTERMEDIATE TOP

- The bench's external dimension is increased by 46.5 cm

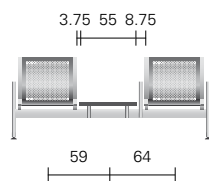
### ROUND TOP

- Diameter Ø 60 cm

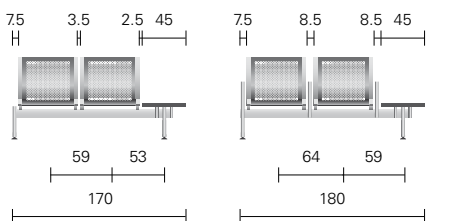
### AS EXTERIOR TOP

- On extended stretcher bar with end arm, the bench's width is increased by 63 cm
- On extended stretcher bar without end arm, the bench's width is increased by 57 cm

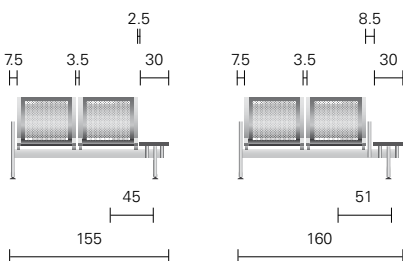
### RECTANGULAR TOP INSTEAD OF SEAT



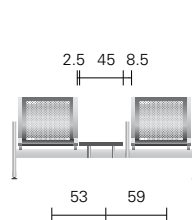
### OVAL TOP AS EXTERIOR TOP



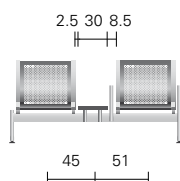
### RECTANGULAR TOP AS EXTERIOR TOP



### OVAL TOP AS INTERMEDIATE TOP



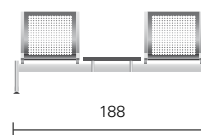
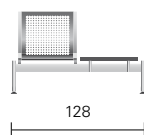
### RECTANGULAR TOP AS INTERMEDIATE TOP



# DIMENSIONS

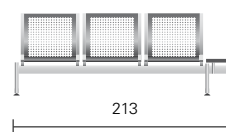
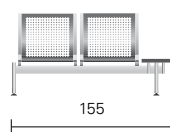
WITHOUT ARMS

WITH TOP 55 x 53 CM



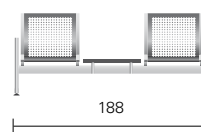
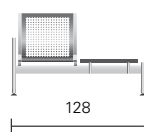
WITHOUT ARMS

WITH TOP 30 x 60 CM



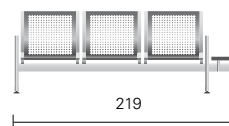
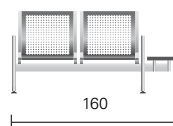
WITH END ARM

WITH TOP 55 x 53 CM



WITH END ARM

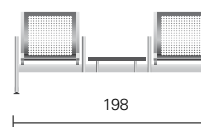
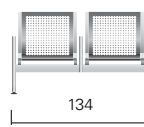
WITH TOP 30 x 60 CM



WITH END/INTERMEDIATE

ARMS WITH TOP

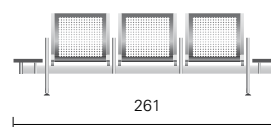
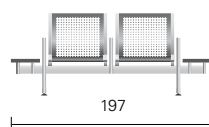
55 x 53 CM

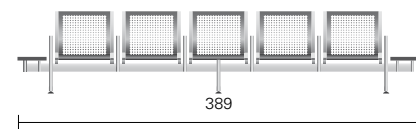
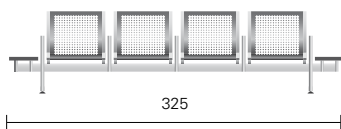
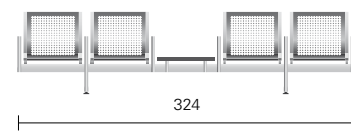
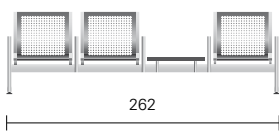
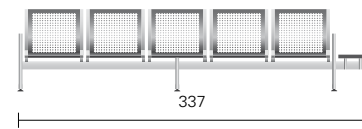
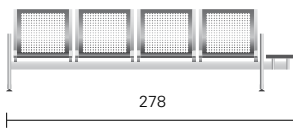
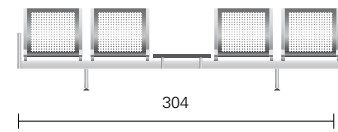
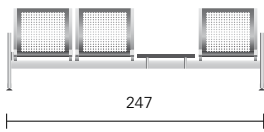
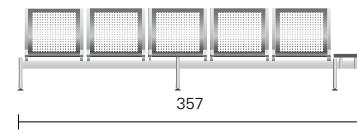
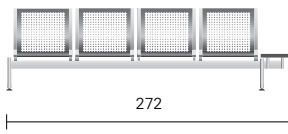
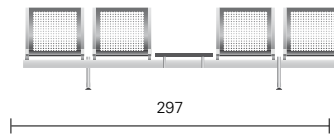
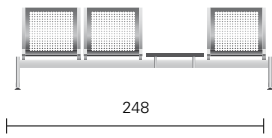


WITH END/INTERMEDIATE

ARMS WITH TOPS

30 x 60 CM





# FIRE PREVENTION

## UPHOLSTERED PADS

The upholstered pads are optionally available with flame-retardant foam. In addition, they are available with the Kusch+Co Fire Prevention Concept, consisting of a special fabric "flamline" (approved by the building authorities and conforms to DIN 4102 A2 non-flammable) between the upholstery foam and the fabric.

This concept achieves four life-saving objectives. The seating:

- is self-extinguishing
- reduces the smoke development
- prevents an incipient fire from spreading out
- does not turn into an additional ignition source.

Test reports in compliance with national and international standards document the laboratory fire tests conducted on different series finished with a wide variety of materials.

With regard to the upholstery, e.g. with leather, artificial leather as well as many textile fabrics, or to our unupholstered variations featuring a plywood, laminated or plastic seat shell, most of our series meet the following standards:

- Germany: DIN 66084 P-a
- France: NFD 60013
- Great Britain: BS 5852 crib 5
- Italy: UNI 9176
- Europe: DIN EN 1021 part 1 and 2

## PU FOAMED SEAT / BACK

The used foam system Elastofoam® meets the fire safety requirements of the European Directive RL 95/28 EG Appendix 4 FMVSS302. The requirements of DIN 75200 regulating the max. flame propagation rate of 101.6 mm/min. are met with a result of < 70 mm/min. The foam system complies with the requirements of DIN EN 1021 part 1 and 2.

## TOPS

Tops made of HPL full core material are flame-retardant.

On request, we happily make the test reports available to you – please contact us.



Germany: DIN 66084 P-a



# QUALITY

## EXCERPT

Our environmental and quality management systems are certified acc. to DIN EN ISO 14001 and to DIN EN ISO 9001. External audits as well as our in-house laboratory safeguard our quality level.

The benches of series 7100 Terminal meet the following standards:

- DIN EN 16139 Level 1 (strength)  
( $\Delta$  DIN EN 13761)
- DIN EN 16139 Level 2 (strength)  
( $\Delta$  DIN EN 15373 Level 3)
- DIN EN 1022 (stability)
- EN 1728:2010 with UNI 10977 Level 5

The benches of series 7100 Terminal with power and data modules are tested acc. to:

- DIN VDE 0701-0702 June 2008
- and meet the European Directives
- 73/23/EEC; 93/68/EEC (Low Voltage Directive)
  - 89/336/EEC; 93/68/EEC (EMC Directive).

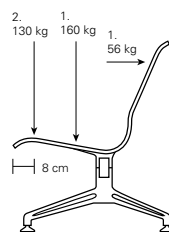
In our capacity as a DIN EN ISO 9001 certified company, we are authorised to test in our own laboratory whether our products meet the GS requirements for Tested Product Safety and issue a Declaration of Conformity equivalent to a GS sign.

We happily make these Declarations of Conformity as well as our brochure "Mission Statement Quality" providing detailed information on our test procedures available to you – please contact us.

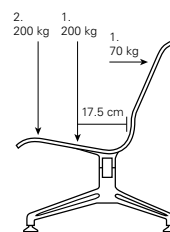


### STATIC LOAD

#### DIN EN 16139 Level 1 ( $\Delta$ DIN EN 13761)

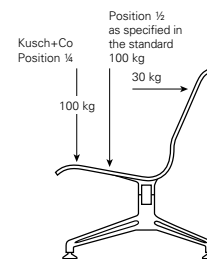


#### DIN EN 16139 Level 2 ( $\Delta$ DIN EN 15373 Level 3)



### DYNAMIC LOAD

#### DIN EN 16139 Level 1 DIN EN 16139 Level 2



# SUSTAINABILITY

## EXCERPT

Kusch+Co products stand for long life cycles and optimum recyclability. From the first design drafts of a new product, we take all environmental-relevant components and production processes into consideration, ranging from the materials selection and the

design all the way to the manufacturing processes which also contribute towards our sustainable energy balance.

DQS-certified Environmental Product Declarations are available for all series, compiled conform to DIN EN ISO 14021 Type II, providing more information about all environmentally relevant aspects, including the Credit Points for the LEED certification of a building. Please contact us for more information.



## 7100 TERMINAL

ENVIRONMENTAL ASPECTS

### ENVIRONMENTAL RESPONSIBILITY

Long before the production of a new series, Kusch+Co starts thinking about the possible environmental impact of the production processes and the required components.

### SUSTAINABILITY

Kusch+Co understands sustainability as the realistic, manageable and economically viable combination of environmental protection, economics and CSR, not only in terms of production, but also how we communicate with our fellow men, our staff members and partners. Sustainability cannot be measured, but it can be sensed.

### QUALITY ASSURANCE

In order to guarantee a constant high-level product quality, Kusch+Co is certified in accordance with the quality management system DIN EN ISO 9001 and the environmental management system DIN EN ISO 14001. We offer a 5-year warranty as standard.

### LIFE CYCLE

#### 1 MATERIALS

- The models of series 7100 Terminal are free from hazardous materials (lead, mercury, pvc).
- All components of series 7100 Terminal comply with the legal RoHS standards.
- Kusch+Co uses CFC and formaldehyde-free foam only that meets the Oeko-Tex® Standard 100.
- To the greatest possible extent, we use aqueous dispersion adhesives free from organic solvents to glue the foam parts to the seat shell/seat. Smallest amounts of solvent-based adhesives are indispensable for technical reasons; however, direct contact with the skin is impossible.
- All plastic parts are labelled properly for recycling.
- All wood products originate from sustainable, legal and verified sources.
- Series 7100 Terminal contains no substances included on the candidate list for authorisation according to REACH (EC) No 1907/2006 (PHEACH).

#### 2 PRODUCTION

- METAL COATING**  
The powder coating is free from volatile organic compounds (VOC) and heavy metals and therefore physiologically harmless. Our chrome-plating finish exists in corrosion protection and is physiologically harmless during the production and the service life of series 7100 Terminal. We do not use perfluorinated surfactants (PFS) for our chrome-plating, as these surfactants are suspected of being carcinogenic.
- WASTE MANAGEMENT**  
All types of process waste (fabric remnants, foam, metal tubes) are collected by professional waste processing companies and 100 % recycled. All wood residues, resulting from wood working, are used to heat the factory, saving precious heating oil.

#### 3 TRANSPORTATION

- The transportation energy is offset by the space-saving packaging.
- The packaging material is reused before it is recycled.
- Kusch+Co's dual disposal system is certified by Innerscan. Approximately 20 tonnes of packaging material is recycled every year.

#### 4 USAGE

- In order to simulate the conditions of a 12-year service life, the series 7100 Terminal was tested for the GS mark for Product Safety with increased test cycles compared to the relevant norms.
- A long service life is guaranteed with most parts being exchangeable and retrofitable. That is our contribution to an efficient resource management.

#### 5 WASTE DISPOSAL

- At the end of their service life, the models of series 7100 Terminal can be disassembled by our professional workers who will separate the materials correctly by type.
- The models of series 7100 Terminal are recyclable to approx. 98 %. The recyclability is exclusive of adhesives, grease, oil, small parts and screws.





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## 7100 TERMINAL

ENVIRONMENTAL ASPECTS

### MATERIAL COMPOSITION

	7100/5	7130/5
Model	34.0 kg	41.0 kg
Weight	34.9 %	34.2 %
Recycle percentage*	98.8 %	98.6 %

These certificates prove the environmental and social compatibility of series 7100 Terminal. At least 98 % of the wood used for the production of this series is PEFC certified. Certificate No. 44702071290.



### 7100/5 TERMINAL 2 seater



Material	Percentage
Steel	75.4 %
Plastic	0.9 %
Aluminium	22.5 %
Miscellaneous	1.2 %

### 7130/5 TERMINAL 2 seater



Material	Percentage
Steel	62.4 %
Plastic	0.7 %
Plywood	1.9 %
Aluminium	25.9 %
Poly	4.1 %
Fabric*	3.6 %
Miscellaneous	1.4 %



\*When the fabric Urban Plus and Xtreme Plus is used, the percentage of the fabric is to be added to the recyclability. These fabrics are made of 100 % of recycled materials.

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18 | 7100 TERMINAL

# REFERENCES

EXCERPT

## ARGENTINA

- Aeropuerto Internacional Ministro Pistarini, Buenos Aires/Ezeiza

## BANGLADESH

- Shahjalal International Airport, Dhaka

## BELGIUM

- Brussels South Charleroi Airport

## CHILE

- Aerodromo Maquehue, Temuco

## CZECH REPUBLIC

- Prague Airport

## EGYPT

- Cairo International Airport

## FRANCE

- Aéroport de Paris – Charles de Gaulle

## GERMANY

- Düsseldorf International Airport
- Stuttgart Airport

## IRELAND

- Dublin Airport

## ITALY

- Aeroporto Leonardo da Vinci, Rom-Fiumicino

## NORWAY

- Svalbard Airport, Longyear

## PORTUGAL

- Faro Airport

## REPUBLIC OF THE CONGO

- Aéroport de Djambal

## RUSSIA

- Sheremetyevo International Airport, Moscow

## SAUDI ARABIA

- Prince Mohammad Bin Abdulaziz International Airport, Medina

## SOUTH AFRICA

- OR Tambo International Airport, Johannesburg

## SWITZERLAND

- Zurich Airport

## TUNISIA

- Aéroport International de Tunis Carthage

## UKRAINE

- Boryspil State International Airport, Kiev

## USA

- Lambert – St. Louis International Airport

## ZAMBIA

- Kenneth Kaunda International Airport, Lusaka



Brussels South Charleroi Airport



Stuttgart Airport



Svalbard Airport, Longyear



Düsseldorf International Airport



