



CASTIONI
KABELFÜHRUNGSSYSTEME



TERRASYSTEM
GROUND MOUNTED PP CABLE TROUGHING

Introducing
TERRAWALK
GRP LID – A15

TERRASYSTEM

GROUND MOUNTED PP CABLE TROUGHING

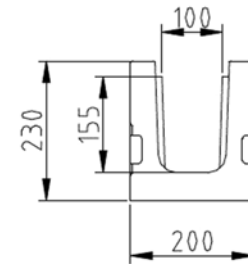
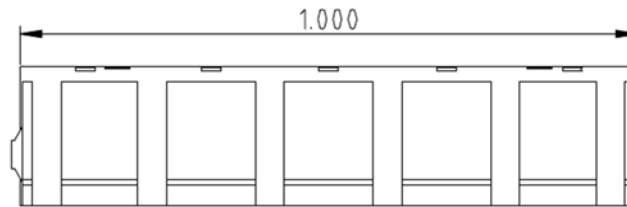
Fast and efficient cable laying
in halogen free PP cable troughs

TERRASYSTEM Size 1

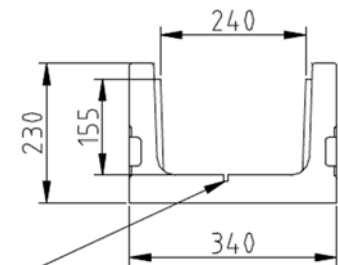
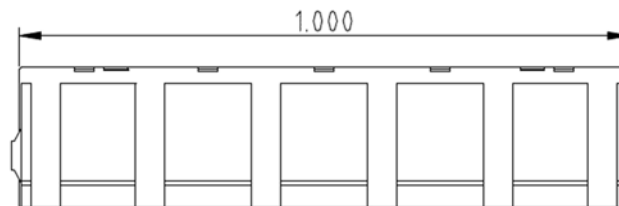
Internal Cross-sectional
Capacity

Size I: 15500 mm²

Size II: 37200 mm²



TERRASYSTEM Size 2



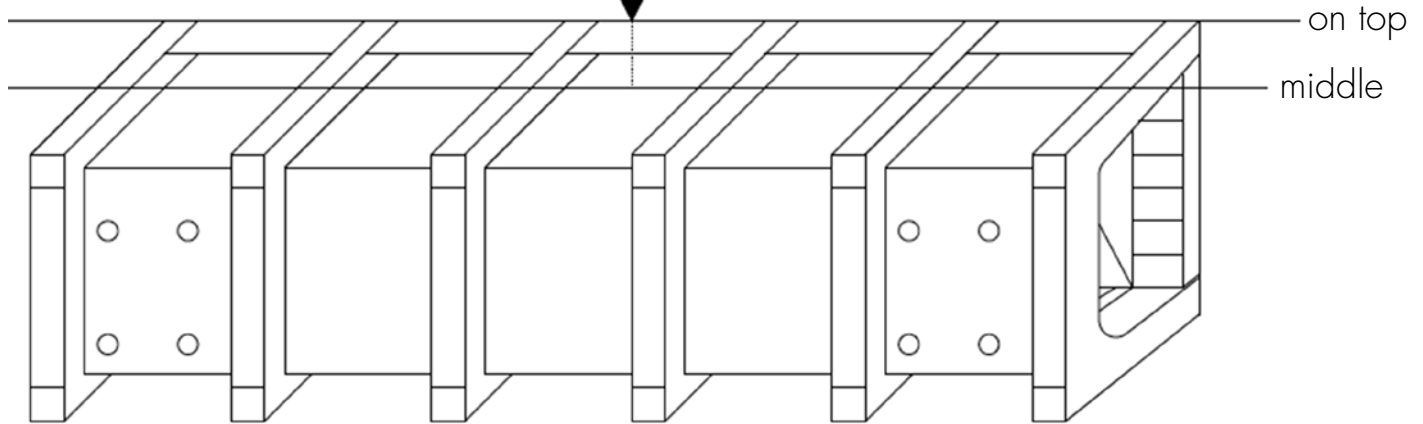
Groove for
partition



Side load plastic cable trough (without rupture)

F

$$F_{\text{top}} = 18,5 \text{ kN}$$
$$F_{\text{middle}} = 30,5 \text{ kN}$$



Advantages of plastic cable troughs versus concrete

Installation

Lightweight, easy to handle, faster to assemble and install

Concrete trough Size II

Weight approx. 160 kg/metre
Laying rate approx. 150 m/day
Heavy lifting gear required
Long project execution

Plastic trough Size II

Weight approx. 8.6 kg/metre
Laying rate approx. 1500 m/day
Manually by a small team
Rapid project execution
Easy navigation of bypasses and curves with markings on troughs
Its lightweight enables the plastic cable trough to be easily assembled and installed, particularly in sandy ground, where it remains in place and stable.



Advantages of plastic cable troughs versus concrete

Logistics

Low weight reduces transport costs

Concrete trough Size II

Weight approx. 160 kg/meter

Loading capacity approx. 150 Pcs. (Truck)

Heavy lifting gear for unloading

Expensive storage

Plastic trough Size II

Weight approx. 8.6 kg/m

Loading capacity approx. 1200 Pcs. (Truck)

Manual unloading at site possible if forklift unavailable.

Simple storage, stackable

Advantages of plastic cable troughs versus concrete

Recyclable

Concrete trough Size II
very work-intensive and expensive

Plastic trough Size II
possible, 100% Recycling

Uninstalling or reuse

Concrete trough Size II
not possible

Plastic trough Size II
possible, easy to reuse



Advantages of plastic cable troughs

- Low weight 8.6 kg/metre trough and lid TERRASYSTEM Size 2
- Fire classification K1 (self-extinguishing) to DIN 53438 Part 2
- Halogen free according to IEC 61249-2-21
- Working temperature range -30° C to +85° C
- UV resistance up to 35 years
- No additional parts required (e.g. connecting pieces, spanners, drainage)
- Single piece cover
- Separator for TERRASYSTEM Size 2 optionally available
- Recyclable
- EBA Approval, released as standard product by DB AG

Snap-on cover



Secure lid fixing system



TERRASYSTEM Size 2 with optional divider



Fixation with rebar
also
possible



Ground Pegs



Point Load $10 \times 10 \text{ cm} = 100 \text{ cm}^2$ 2 kN

Uniformly Distributed Load 10 kN

Suitable for occasional pedestrian traffic



Supplementary cutting lines 15°/30°



Trough to trough connection



Cable feed knock-outs



TERRAWALK

GRP LID – A15

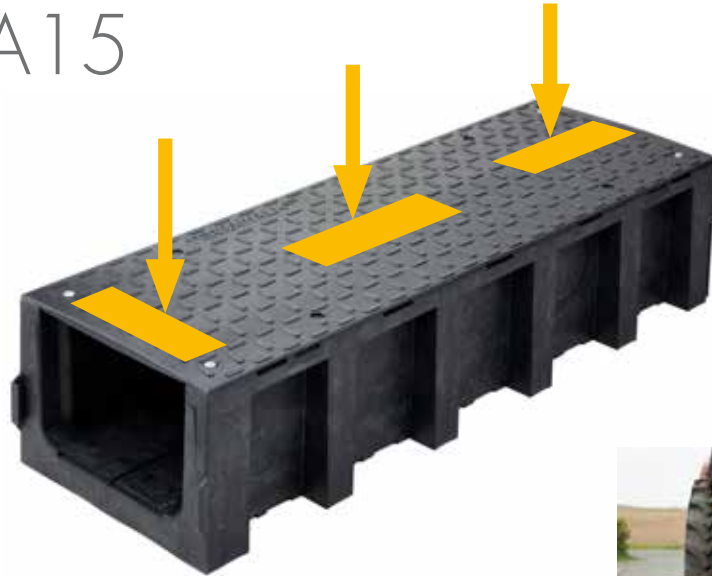


Press moulded structural SMC trough lid
Upgrades the lid for regular pedestrian traffic



Loading Test to EN 124

Test Result: A15



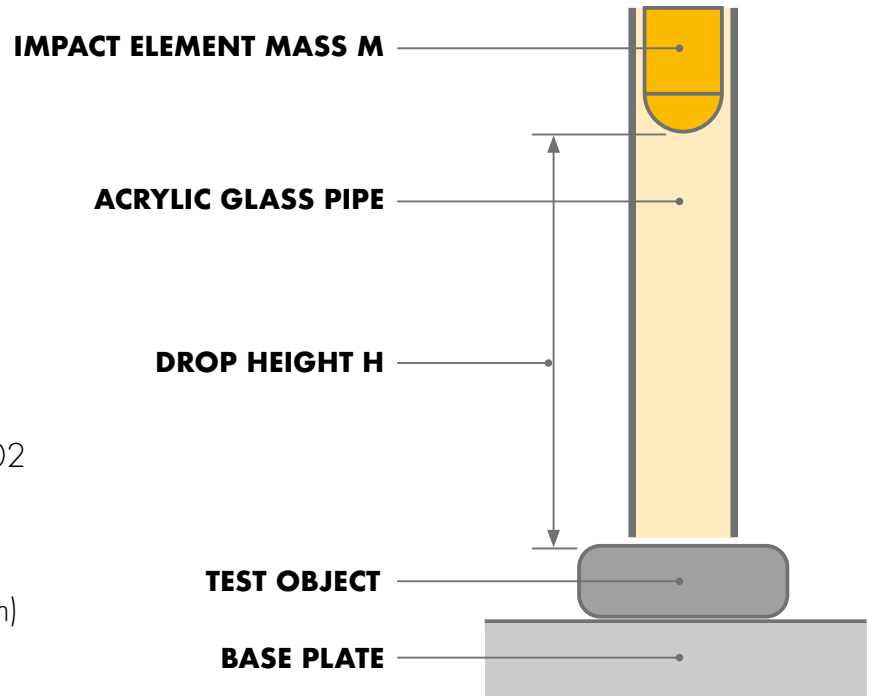
Static Load applied on an area 25 x 10 cm
Test Load was applied in three positions
and two orientations TERRAWALK classified as A15 (15kN)
Failure Load applied centrally: 38.6 kN



Impact Test according to EN 50102

Test Result: IK10

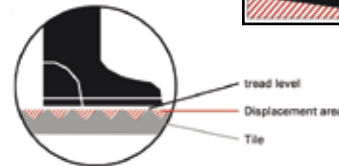
Impact Resistance of the Lid to EN 50102
Impact Energy: 20 J
Drop Height: 40 cm
Test Temperature: 23 +/- 2°C
Impact Element: Ball Radius R50 (50 mm)
Number of free fall impacts: 5
Result: no visible damage, no breakage



Slip Resistance and Volume Displacement of TERRAWALK Lid and Internal Outward Loading Test

Internal outward loading of the Lid
Test Stamp placed and fixed
below the lid: \varnothing 260 mm
Test temperature: 23 ± 2 °C
Outward Loading: 3000 N

Slip Resistance Testing to DIN 51130
Test load of 3 kN applied over an
area of \varnothing 260 mm on an oily surface
Test temperature 23 ± 2 °C
Slip Angle $10^\circ - 19^\circ$
Slip Resistance Rating: R10



Displacement space
measured as
V10 ($10 \text{ cm}^3/\text{dm}^2$)



Fire Test according to EN 13501-1

Test Result: C-S2, d0

Fire Test with Red Hot Poker
at about 700°C placed on the Lid.
Result: Damaged Surface due to the heat,
self extinguishing, no breaking,
does not burn through the Lid









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Krähenbühl 8
CH - 5642 Mühlau AG
Phone: +41 56 670 2000

info@castioni.de
www.castioni-kabelkanal.com