HEAVY-DUTY SQUARE GRATING WITH FRAME

INDEX

1. CODE REGISTRY

Code	Description	Load class *	Measures (mm)	Weight	Color	Pkg. / Pallet
ZIN09-6902P	Galvanized Grate with Frame	Class 3	300 x 300	5,408 kg/pz.	Steel	12 pcs. / 276 pcs.
ZIN09-6903P	Galvanized Grate with Frame	Class 3	350 x 350	6,804 kg/pz.	Steel	12 pcs. / 207 pcs.
ZIN09-6904P	Galvanized Grate with Frame	Class 2	400 x 400	8,621 kg/pz.	Steel	12 pcs. / 138 pcs.
ZIN09-6905P	Galvanized Grate with Frame	Class 2	450 x 450	10,374 kg/pz.	Steel	12 pcs. / 92 pcs.
ZIN09-6906P	Galvanized Grate with Frame	Class 2	500 x 500	11,813 kg/pz.	Steel	12 pcs. / 92 pcs.
ZIN09-6907P	Galvanized Grate with Frame	Class 2	550 x 550	13,300 kg/pz.	Steel	12 pcs. / 92 pcs.
ZIN09-6908P	Galvanized Grate with Frame	Class 1	600 x 600	15,645 kg/pz.	Steel	12 pcs. / 92 pcs.

* see point 4

MATERIAL Made of electro-welded galvanized steel.

2. DESCRIPTION

Complete grating with frame, featuring a 40 x 3 mm griddle/burner and 34 x 38 mm mesh

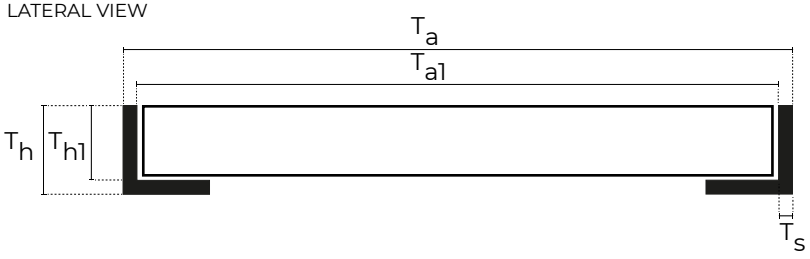
3. UTILIZZO

Used for the collection and runoff of rainwater, washing and/or wastewaters.
The anti-heel mesh is recommended for the use in areas with high pedestrian traffic

HEAVY-DUTY SQUARE GRATING WITH FRAME

FRAME

LATERAL VIEW

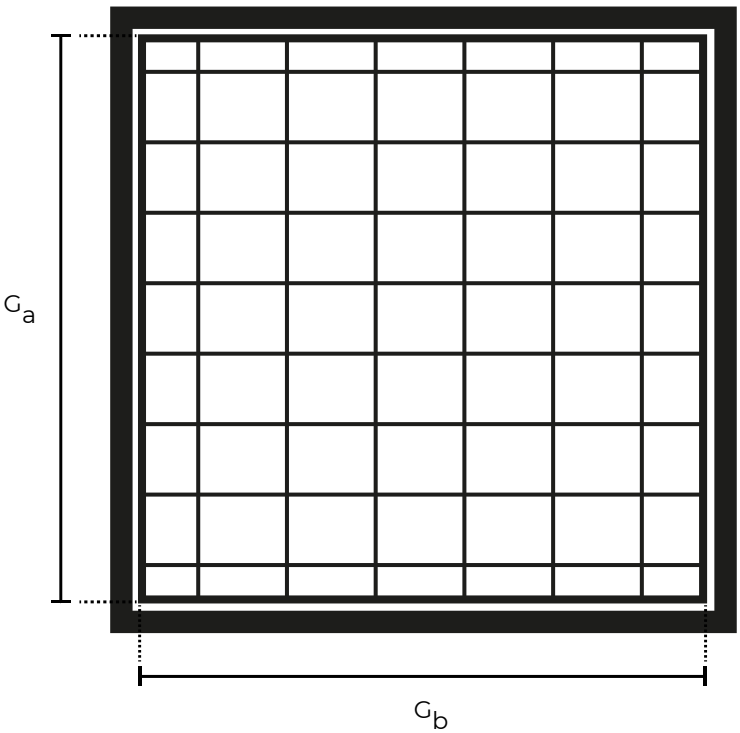


Frame (T)							
Code	ext. measures * mm			int. measures * mm			thickness sheet mm
	T_a	T_b	T_h	T_{a1}	T_{b1}	T_{h1}	T_s
ZIN09-6902P	300	300	43	294	294	40	3
ZIN09-6903P	350	350	43	344	344	40	3
ZIN09-6904P	400	400	43	394	394	40	3
ZIN09-6905P	450	450	43	444	444	40	3
ZIN09-6906P	500	500	43	494	494	40	3
ZIN09-6907P	550	550	43	544	544	40	3
ZIN09-6908P	600	600	43	594	594	40	3

* tolerance ± 2 mm

GRATING

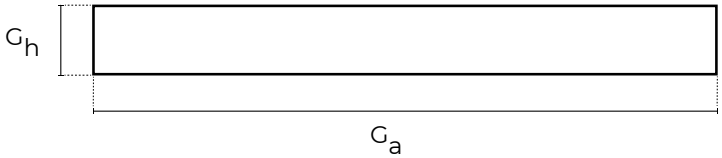
TOP VIEW



Griglia (G)				
Code	ext measures * mm			Grating mm
	G_a	G_b	G_h	
ZIN09-6902P	290	290	40	34x38
ZIN09-6903P	340	340	40	34x38
ZIN09-6904P	390	390	40	34x38
ZIN09-6905P	440	440	40	34x38
ZIN09-6906P	490	490	40	34x38
ZIN09-6907P	540	540	40	34x38
ZIN09-6908P	590	590	40	34x38

* tolerance ± 2 mm

LATERAL VIEW



HEAVY-DUTY SQUARE GRATING WITH FRAME

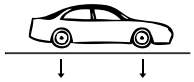
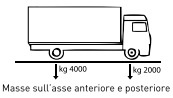
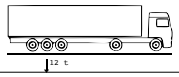
4. LOAD CLASS

Electrofused and/or pressed grating panels are divided into the following load-bearing classes:
- Class 1: Pedestrian load
- Classes 2–3–4: Road vehicle load

Each class is determined by two key factors:
- THE LOAD
- THE FOOTPRINT

For load-bearing class 1, the load is considered to be uniformly distributed over the entire surface of the panel (Fig. 1) and does not include any other specific loads.
For load-bearing classes 2, 3, and 4, the load is considered to be applied to the footprint corresponding to its respective class (Fig. 2). The loads and footprints were selected based on the total ground masses at full load and the load distribution per footprint of the various types of vehicles currently in circulation. The intended use of the panels must be specified by the client. The dynamic load was obtained by multiplying the static ground masses by an average dynamic coefficient of 1.5 in accordance with standard technical specifications.

PEDESTRIAN TRAFFIC		
CLASS	**LOAD CLASS**	**DYNAMIC LOAD (daN/m2) 1daN =~1Kg**
CLASS 1 	DENSE CROWN (pedestrian load)	Dynamic load 600 daN/m^2

LOADING OF ROAD VEHICLES		
CLASS	**LOAD CLASS**	**DYNAMIC LOAD (daN/m2) 1daN =~1Kg**
CLASS 2 	TRANSIT LIMITED TO PASSENGER CARS	Total ground mass (static) up to 3,000 kg. Dynamic load 1,000 daN on a 200x200 footprint
CLASE 3  Masse sull'asse anteriore e posteriore	TRANSIT LIMITED TO LIGHT TRUCKS	Total ground weight (static) up to 6,000 kg. Dynamic load: 3,000 daN on a 400x400 footprint
CLASS 4 	TRANSIT OF ARTICULATED TRUCKS	Total ground weight (static) up to 45,000 kg. Dynamic load 9,000 daN on a footprint of 600x250

5. GALVANIZED STEEL PROFILES AND SECTIONS: INSTRUCTION FOR USE

All carbon steel products and profiles in the DAKOTA catalog undergo a galvanization process, which involves applying a zinc coating to the materials (known as galvanizing) to protect them from oxidation.

However, the product's lifecycle does not end with production; rather, it is used in various environments and applications, with its final placement in flooring and structures exposed to various potential critical conditions that can significantly damage the protective zinc coating, leading to the onset of rust. These are some of the most common critical conditions:

- The installation of DAKOTA galvanized steel products involves the use, depending on the installer and intended application, of concrete, adhesives, fillers, cement mortars, etc.
- Once installed, DAKOTA galvanized steel products may come into contact with cleaning products of various chemical compositions used to clean surfaces and adjacent joints;
- The locations where they are installed may present varying levels and situations of high environmental corrosivity;

Laboratory tests have concluded that both installation and cleaning products with a pH lower than 6 or higher than 11 can compromise the zinc coating and trigger the oxidation process of the steel, leading to deterioration and ultimately the destruction of the product.

Therefore, it is essential that:

- Both the installer and the end user thoroughly and proactively verify the technical specifications provided by the manufacturer of the adhesives and/or cleaning products to be used
- The installer must protect the galvanized steel parts to prevent them from coming into contact with adhesives, grouts, and/or cleaning agents capable of damaging them
- The designer, installer, maintenance technician, and end user must be aware of the need to use stainless steel products as an alternative to galvanized steel in areas where environmental corrosivity is high.

HEAVY-DUTY SQUARE GRATING WITH FRAME

6. TECHNICAL SPECIFICATION

Item	Description	U.M.	Price
Dak.D.ZIN09.690xP	Supply and installation of a grating complete with frame, featuring 40 x 3 mm bars and a 34 x 38 mm mesh. Made of hot-dip galvanized, electrically welded steel. Used for the collection and drainage of rainwater, wash water, and/or wastewater.		
Dak.D.ZIN09.6902P	Dimensions 300 x 300 mm.....	pz.	-
Dak.D.ZIN09.6903P	Dimensions 350 x 350 mm.....	pz.	-
Dak.D.ZIN09.6904P	Dimensions 400 x 400 mm.....	pz.	-
Dak.D.ZIN09.6905P	Dimensions 450 x 450 mm.....	pz.	-
Dak.D.ZIN09.6906P	Dimensions 500 x 500 mm.....	pz.	-
Dak.D.ZIN09.6907P	Dimensions 550 x 550 mm.....	pz.	-
Dak.D.ZIN09.6908P	Dimensions 600 x 600 mm.....	pz.	-