

KlassikDrain Product Information Sheet

Product Name:

ACO KlassikDrain

Product description and intended use:

ACO KlassikDrain is a general-purpose trench drain comprising of modular Polycrete® channels. Each unit is manufactured with integrally cast edge rails of either galvanized steel edge rails (K-type) or stainless-steel edge rails (KS-type)

KlassikDrain K and KS channels consist of 1-meter-long units.

K100/KS100 (100mm internal width), K200/KS200 (200mm internal width) & K300/KS300 (300mm internal width).

1 – 40 sloped, numbered channels with a 0.5% in built slope.

5 Neutral channels available with depth increments of 50mm. (00, 010, 020, 030, 040)

ACO KlassikDrain In Line Pit information:

In Line Pits are available for the K & KS 100/200/300 range.

Where slim (profile) In line pits are required for the K100 & KS100 type 900G and 900S are available. Refer to <https://askaco.nz/aco-klassikdrain/> for more information including specification sheets and technical information.

Product identifier:

K and KS-Type and channel number are visible on the side of the channel, the channel number is visible when the grate is removed and viewed from above for sloping channels. Neutral channels are marked with 'neutral' following the channel number.

Place of manufacture:

Aotearoa New Zealand

Overseas

Legal and trading name of the manufacturer(s):

ACO PTY LTD

Address for service:

Street name: 134-140 Old Bathurst Road

Suburb, State: Emu Plains, NSW

City, Country: Sydney, Australia

Postcode: 2750

Website: www.acoaus.com.auEmail address: sales@acoaus.com.au

Phone number: +61 2 4747 4000

Legal and trading name of the importer (if applicable):

ACO Limited

Address for service:

Street name:	35 Te Tiki Road	Suburb:	Mangere
City, Country:	Auckland, New Zealand	Postcode:	2022
Website:	www.aconz.co.nz		
Email address:	info@aconz.co.nz		
Phone number:	0800 448 080		
NZBN:	9429030838697		

Relevant Building Code clauses:

NBZ E1/AS1 Surface water
 NZBC E1/AS2 Surface water
 NZBC E2/AS1 External moisture

Statement on how the building product is expected to contribute to compliance:

NZBC E1 Surface Water:

- E1.1/E1.2: ACO KlassikDrain Polymer Concrete V-profile channel system has been designed to safeguard people from injury or illness, and other property from damage caused by surface water.
- E1.3.1/E1.3.2: Upon selecting the correct size channel for application and installed as per ACO documentation, ACO KlassikDrain will protect property from surface water resulting from an event having a 10% probability of occurring annually or from surface water resulting from an event having a 2% probability of occurring entering a building.
- E1.3.3: When appropriately selected and installed correctly, ACO KlassikDrain will convey surface water to an appropriate outflow using gravity flow where possible, avoid the likelihood of blockages and provide reasonable access for the maintenance and clearing of blockages within the channel drain system and avoid the likelihood of damage from superimposed loads of normal ground movement.

NZBC E2 External Moisture:

ACO KlassikDrain may also be selected for use in E2/AS1 Level entry threshold drainage with supporting documentation & literature from ACO to support the application of the product in the given environment with acceptable, alternative solution as per E2/AS1.

Access covers & grates: ACO KlassikDrain grates are available in load classes up to load class D (AS 3996). All access covers and grates are designed and manufactured in full compliance with the requirements of AS 3996. Other ACO Products are independently tested to meet the loading requirements of this standard.

NZBC B2/AS1 Durability:

If properly maintained with normal maintenance, ACO products installed in the correct application and according to ACO's installation instructions will hold their integrity for as long as the adjacent pavement will. ACO KlassikDrain will meet the requirements of these such building elements as per B2.3.1 (b) 15 years and (c) not less than 5 years.

Limitations of the use of the building product:

All grates have been tested to AS 3996 standards and are identified by load classification. Concrete encasement for the installation must be adhered to for the selected load class, details for this can be found on the website for a variety of installation types and loadings: www.askaco.nz/aco-klassikdrain/

ACO Drain channel bodies are highly resistant to chemical attack, and with the appropriate grate can be used in most environments where acids and dilute alkalis are encountered. Refer to the chemical resistance information found here: <https://www.acodrain.co.nz/resources/technical-data.htm>

Design requirements that would support the use of the building product:

ACO KlassikDrain is intended for use in situations where surface water is expected, some examples are as follows.

Level surface requiring an in-built slope to promote the movement of water through the force of gravity.

All surface water is not intended to be drained through a permeable surface i.e. grass. In situations where the ponding of surface water is expected and may present a health and safety risk to the public.

Full access to the channel drain is required for maintenance or inspection.

Installation requirements:

The complete drainage system shall be by ACO and be installed for its intended purpose. Any deviation or partial use of the specified system and/or improper installation will void all warranties provided by ACO.

Installation of the channel drain is to be carried out by appropriately qualified personnel to applicable legislative requirements. All work should commence under the direct supervision of a certifying drainlayer as per the Plumbers, Gasfitters and Drainlayers Act 2006.

Please refer to the installation manual and relevant site installation files found on our website. Further site installation support is available: <https://askaco.nz/aco-klassikdrain/>

Maintenance requirements:

Regular inspections of the trench drain are recommended. Frequency will depend on local conditions and environment but should at least occur annually.

Inspections should cover:

- Grates and locking devices.
- Pits (sumps) and rubbish baskets.
- Concrete surround & adjacent paving.

All items should be inspected for damage, blockage or movement and compared with site drawings if needed.

Is the building product/building product line subject to warning or ban under section 26? No

Parts table

	K100 – 100mm internal width				K200 – 200mm internal width				K300 – 300mm internal width			
	Part No.		Invert ² Weight		Part No.		Invert ² Weight		Part No.		Invert ² Weight	
	Galv	S/S	mm	kg	Galv	S/S	mm	kg	Galv	S/S	mm	kg
00 Neutral channel (1m)¹	144041	144441	100	12.7	145041	145441	200	37.9	146041	146441	300	60.1
1 Sloped channel (1m)	144001	144401	105	12.7	145001	145401	205	37.9	146001	146401	305	60.1
2 Sloped channel (1m)	144002	144402	110	13.1	145002	145402	210	38.4	146002	146402	310	60.7
3 Sloped channel (1m)	144003	144403	115	13.5	145003	145403	215	38.9	146003	146403	315	61.2
4 Sloped channel (1m)	144004	144404	120	13.8	145004	145404	220	39.4	146004	146404	320	61.8
5 Sloped channel (1m) ¹	144005	144405	125	14.2	145005	145405	225	39.9	146005	146405	325	62.3
6 Sloped channel (1m)	144006	144406	130	14.6	145006	145406	230	40.4	146006	146406	330	62.9
7 Sloped channel (1m)	144007	144407	135	14.9	145007	145407	235	40.9	146007	146407	335	63.4
8 Sloped channel (1m)	144008	144408	140	15.3	145008	145408	240	41.4	146008	146408	340	64.0
9 Sloped channel (1m)	144009	144409	145	15.6	145009	145409	245	41.9	146009	146409	345	64.5
10 Sloped channel (1m) ¹	144010	144410	150	16.0	145010	145410	250	42.4	146010	146410	350	65.0
010 Neutral channel (1m)¹	144043	144443	150	16.0	145043	145443	250	42.4	146043	146443	350	65.0
0103 Neutral channel (0.5m)¹	144044	144444	150	7.7	145044	145444	250	25.4	146044	146444	350	34.2
11 Sloped channel (1m)	144011	144411	155	16.4	145011	145411	255	42.9	146011	146411	355	65.6
12 Sloped channel (1m)	144012	144412	160	16.7	145012	145412	260	43.4	146012	146412	360	66.1
13 Sloped channel (1m)	144013	144413	165	17.1	145013	145413	265	43.9	146013	146413	365	66.7
14 Sloped channel (1m)	144014	144414	170	17.5	145014	145414	270	44.4	146014	146414	370	67.2
15 Sloped channel (1m) ¹	144015	144415	175	17.8	145015	145415	275	44.9	146015	146415	375	67.8
16 Sloped channel (1m)	144016	144416	180	18.2	145016	145416	280	45.4	146016	146416	380	68.3
17 Sloped channel (1m)	144017	144417	185	18.6	145017	145417	285	45.9	146017	146417	385	68.9
18 Sloped channel (1m)	144018	144418	190	18.9	145018	145418	290	46.4	146018	146418	390	69.4
19 Sloped channel (1m)	144019	144419	195	19.3	145019	145419	295	46.9	146019	146419	395	69.9
20 Sloped channel (1m) ¹	144020	144420	200	19.7	145020	145420	300	47.4	146020	146420	400	70.5
020 Neutral channel (1m)¹	144045	144445	200	19.7	145045	145445	300	47.4	146045	146445	400	70.5
0203 Neutral channel (0.5m)¹	144046	144446	200	9.3	145046	145446	300	29.0	146046	146446	400	37.3
21 Sloped channel (1m)	144021	144421	205	20.0	145021	145421	305	47.9	146021	146421	405	71.1
22 Sloped channel (1m)	144022	144422	210	20.4	145022	145422	310	48.4	146022	146422	410	71.6
23 Sloped channel (1m)	144023	144423	215	20.8	145023	145423	315	48.9	146023	146423	415	72.2
24 Sloped channel (1m)	144024	144424	220	21.1	145024	145424	320	49.4	146024	146424	420	72.7
25 Sloped channel (1m) ¹	144025	144425	225	21.5	145025	145425	325	49.9	146025	146425	425	73.3
26 Sloped channel (1m)	144026	144426	230	21.9	145026	145426	330	50.4	146026	146426	430	73.8
27 Sloped channel (1m)	144027	144427	235	22.2	145027	145427	335	50.9	146027	146427	435	74.3
28 Sloped channel (1m)	144028	144428	240	22.6	145028	145428	340	51.4	146028	146428	440	74.9
29 Sloped channel (1m)	144029	144429	245	23.0	145029	145429	345	51.9	146029	146429	445	75.4
30 Sloped channel (1m) ¹	144030	144430	250	23.3	145030	145430	350	52.4	146030	146430	450	76.0
030 Neutral channel (1m)¹	144047	144447	250	23.3	145047	145447	350	52.4	146047	146447	450	76.0
0303 Neutral channel (0.5m)¹	144048	144448	250	10.9	145048	145448	350	30.8	146048	146448	450	40.6
31 Sloped channel (1m)	144031	144431	255	23.7	145031	145431	355	52.9	146031	146431	455	76.5
32 Sloped channel (1m)	144032	144432	260	24.0	145032	145432	360	53.4	146032	146432	460	77.1
33 Sloped channel (1m)	144033	144433	265	24.4	145033	145433	365	53.9	146033	146433	465	77.6
34 Sloped channel (1m)	144034	144434	270	24.8	145034	145434	370	54.4	146034	146434	470	78.2
35 Sloped channel (1m) ¹	144035	144435	275	25.1	145035	145435	375	54.9	146035	146435	475	78.7
36 Sloped channel (1m)	144036	144436	280	25.5	145036	145436	380	55.4	146036	146436	480	79.2
37 Sloped channel (1m)	144037	144437	285	25.9	145037	145437	385	55.9	146037	146437	485	79.8
38 Sloped channel (1m)	144038	144438	290	26.3	145038	145438	390	56.4	146038	146438	490	80.3
39 Sloped channel (1m)	144039	144439	295	26.6	145039	145439	395	56.9	146039	146439	495	80.9
40 Sloped channel (1m) ¹	144040	144440	300	27.0	145040	145440	400	57.4	146040	146440	500	81.4
040 Neutral channel (1m)¹	144049	144449	300	27.0	145049	145449	400	57.4	146049	146449	500	81.4
0403 Neutral channel (0.5m)¹	144050	144450	300	12.5	145050	145450	400	34.9	146050	146450	500	44.3
Type 900 In-line pit (0.5m) ³	141817	141818	723 ⁴	23.9	141819	141820	843 ⁴	30.8	141821	141822	956 ⁴	39.9
Type 900 In-line plastic rubbish basket		01498	–	0.5		13999	–	0.5		98653	–	1.6
Optional plastic riser										141729	300	4.5
Plastic rubbish basket – long										98665	–	1.8
Universal end cap		96822	315 ⁴	0.2		96821	420 ⁴	0.6		96826	520 ⁴	1.1
Debris strainer for 100mm knockout		93488	–	0.1		93488	–	0.1				
Installation device		97477	–	1.3		97478	–	1.8		97479	–	2.2
Grate removal tool		01318	–	0.1		01318	–	0.1		01318	–	0.1

Notes:

- This channel offers bottom knockout feature; K100 – 100mm round & 150mm oval, K200 – 100mm & 150mm round, K300 – 150mm & 200mm round.
- Inverts shown are male end, for female invert depth – subtract 5mm from male invert (except neutral channels where it will be same as male invert).
To calculate overall channel depth: K100, add 20mm to invert depth; K200/K300, add 25mm to invert depth.
- In-line pit assembly (polymer concrete top with galvanised (G)/stainless (S) steel edge rail and plastic base). Select appropriate grate to suit.
- Overall depth of in-line pit and end caps.



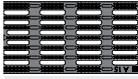
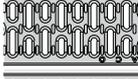
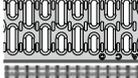
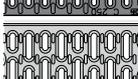
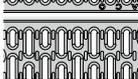
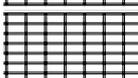
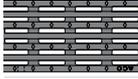
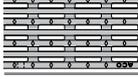
KlassikDrain DrainLok grates

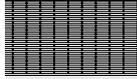
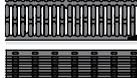
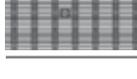
K100 grates

Length mm Part No. Wgt kg    

K200 grates

Length mm Part No. Wgt kg    

LOAD CLASS A – AS 3996 – 10kN – approximate wheel load 330kg							
	Type 494D Black Plastic Intercept Heelsafe® Anti-Slip	500	142459	0.8	✓	✓	✓
	Type 495D Grey Plastic Intercept Heelsafe® Anti-Slip	500	142460	0.8	✓	✓	✓
	Type 420D/421D Galv Slotted	1000 500	12610 12611	2.7 1.4	✓	✗	✗
	Type 450D/452D Stainless Slotted	1000 500	12640 12641	2.7 1.4	✓	✗	✗
	Type 445Q/446Q Stainless Wedgwire	1000 500	141202 141204	2.5 1.3	✓	✓	✗
LOAD CLASS B – AS 3996 – 80kN – approximate wheel load 2,670kg							
	Type 443D/444D Stainless 5 Star¹ Heelsafe® Anti-Slip	1000 500	142217 142218	3.2 1.6	✓	✓	✓
	Type 437D/438D Galv Longitudinal Heelsafe® Anti-Slip	1000 500	132556 132551	4.0 2.1	✓	✓	✓
	Type 439D/440D Stainless Longitudinal Heelsafe® Anti-Slip	1000 500	132555 132550	4.0 2.1	✓	✓	✓
LOAD CLASS D – AS 3996 – 210kN – approximate wheel load 8,000kg							
	Type 492D Plastic Slotted¹ Heelsafe® Anti-Slip	500	132720	1.0	✓	✓	✓
	Type 425D/426D Galv Slotted	1000 500	12614 12615	4.0 2.0	✓	✗	✗
	Type 455D/457D Stainless Slotted	1000 500	12644 12645	4.0 2.0	✓	✗	✗
	Type 405Q/406Q Galv Mesh²	1000 500	142401 142402	4.3 2.2	✗	✗	✗
	Type 430Q/431Q Stainless Mesh²	1000 500	142403 142404	4.1 2.1	✗	✗	✗
	Type 480D Iron Wave¹ Heelsafe® Anti-Slip	500	142461	4.5	✓	✓	✓
	Type 481Q Iron Decorative Heelsafe® Anti-Slip	500	97120	4.1	✓	✓	✓
	Type 461D Iron Slotted	500	12670	4.6	✓	✗	✗
	Type 478D Iron Intercept¹ Heelsafe® Anti-Slip	500	142171	5.8	✓	✓	✓
	Type 477D Iron Galv Intercept¹ Heelsafe® Anti-Slip	500	142172	5.8	✓	✓	✓

LOAD CLASS B – AS 3996 – 80kN – approximate wheel load 2,670kg							
	Type 643D/644D Stainless 5 Star¹ Heelsafe® Anti-Slip	1000 500	142221 142222	7.5 3.7	✓	✓	✓
	Type 607Q/608Q Galv Transverse²	1000 500	141749 141716	7.8 4.2	✗	✗	✗
LOAD CLASS D – AS 3996 – 210kN – approximate wheel load 8,000kg							
	Type 605Q/606Q Galv Mesh²	1000 500	141741 141742	13.8 7.1	✗	✗	✗
	Type 630Q/631Q Stainless Mesh²	1000 500	141746 141747	13.0 6.6	✗	✗	✗
	Type 680D Iron Wave¹ Heelsafe® Anti-Slip	500	142462	12.7	✓	✓	✓
	Type 681Q Iron Decorative Heelsafe® Anti-Slip	500	93956	12.2	✓	✓	✓
	Type 661D Iron Slotted	500	142177	12.0	✓	✗	✗
	Type 678D Iron Intercept¹ Heelsafe® Anti-Slip	500	142173	10.0	✓	✓	✓
	Type 677D Iron Galv Intercept¹ Heelsafe® Anti-Slip	500	142174	10.0	✓	✓	✓

Stainless Wire Cross-sections



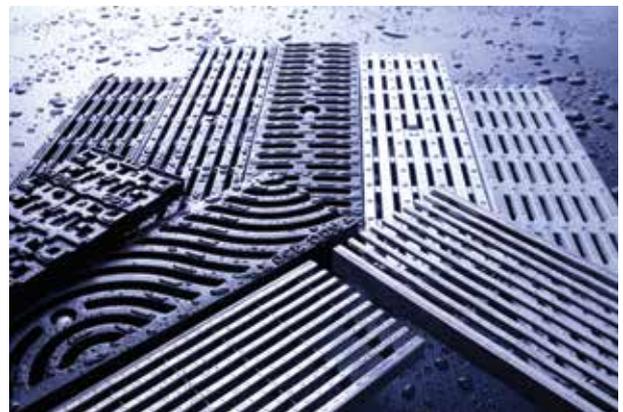
★ Wedgwire 5 Star

▲ Longitudinal

Heelsafe® Anti-Slip grates



ACO believes that pedestrian friendly grates and slip resistance go hand in hand. The grates with the trademark, **Heelsafe® Anti-Slip** comply to AS 3996, AS 4586 and all the specific user requirements described opposite. For more information visit www.heelsafe.com.au

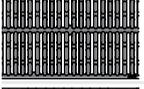


KlassikDrain's Heelsafe® Anti-Slip grate range



K300 grates

Length mm Part No. Wgt kg    

LOAD CLASS B – AS 3996 – 80kN – approximate wheel load 2,670kg								
	Type 843D/844D Stainless 5 Star ¹ Heelsafe® Anti-Slip	1000	142225	12.5	✓	✓	✓	✓
		500	142226	6.2				
★ See Below pg 6								
	Type 807Q/808Q Galv Transverse ²	1000	141750	12.4	✗	✗	✓	✗
		500	141717	6.3				
★ See Below pg 6								
LOAD CLASS D – AS 3996 – 210kN – approximate wheel load 8,000kg								
	Type 805Q Galv Mesh ²	500	141743	12.7	✗	✗	✓	✗
	Type 830Q Stainless Mesh ²	500	141748	15.1				
★ See Below pg 6								
	Type 880Q Iron Wave ¹ Heelsafe® Anti-Slip	500	142463	21.8	✓	✓	✓	✓
	Type 881Q Iron Decorative Heelsafe® Anti-Slip	500	141754	21.3	✓	✓	✓	✓
	Type 861Q Iron Slotted	500	13870	19.0	✓	✗	✓	✗
	Type 878Q Iron Intercept ¹ Heelsafe® Anti-Slip	500	93901	15.9	✓	✓	✓	✓
	Type 877Q Iron Galv Intercept ¹ Heelsafe® Anti-Slip	500	142176	15.9	✓	✓	✓	✓

¹ Meets ASME A112.6.3 Section 7.12 (American high heel standard).

² Denotes QuickLok grates. QuickLok bar included in grate Part Number.

Specific user requirements

ACO's grates meet some or all of the legislative requirements described below:

-  Wheelchair compliant to AS 1428.2, Clause 9(c). Slots cannot exceed 13mm (width), 150mm (length). Longitudinal grates are to be placed at right angles to the principal direction of travel.
-  Grates designed to resist the penetration of a 10mm heel.
-  Bicycle tyre penetration resistant to AS 3996. Criteria on slot length dependant on slot width.
-  Pedestrian safe grates with slip resistance, rated to AS 4586.

DrainLok – barless and boltless locking system



Fast locking device removes the need for bars and bolts and improves the channels hydraulic capacity. The DrainLok mechanism simply clips into the channel edge rail for quick installation. ACO's DrainLok grates are fitted with anti-shunt lugs that restrict grate movement when installed, improving durability and longevity of the system.

1



PLACE GRATE

Position grate onto channel and align anti-shunt lugs with the recess in the rail.

2



SECURE GRATE

Push down or stand on the grate until it clicks into position.

3



GRATE REMOVAL

To remove first grate, insert grate removal tool into slots at the end of the grate and pull up sharply. Remaining grates can be removed by hand.