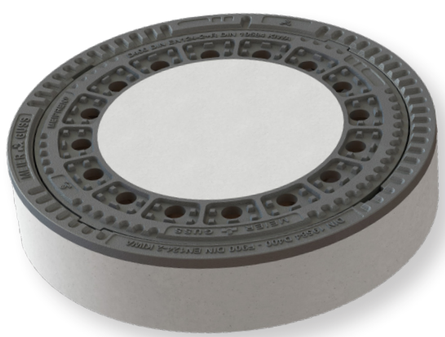
RAL-GZ 692 – The seal of quality for more quality and safety in sewer casting

RAL seals of quality are among the most important seals of quality used in Germany and help customers make the right purchase decisions. In addition to proving adherence to existing technical requirements listed in DIN EN 124:2015, products must meet additional inspection requirements in the area of operational and traffic safety to be awarded the seal of quality RAL-GZ 692. Despite their great relevance for safety, these features are not included in any other standards/directives.

Since September 2015, the directive DIN EN 124:2015 has been in force without supplement ZA. As it is not permitted to use supplement ZA of directive DIN EN 124:2015, there are no requirements or regulations regarding third-party monitoring of products, even though these are an essential quality assurance measure.

RAL quality assurance, on the other hand, includes the time-tested system of internal monitoring and external monitoring by an independent third party. This means it is important to actively enquire about third-party monitoring of production processes and products when selecting a product and to take the result into account for making decisions.

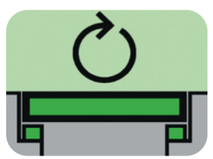


Examples from quality directive RAL-GZ 692:

1. The vertical position securing mechanism

2. The behaviour of the cushioning insert

3. Product approval in practical use



For light-weight secured gratings/covers, DIN EN 124:2015 requires a pull-out test for the vertical position securing mechanism without indicating minimum requirements for the pull-out force. RAL-GZ 692 contains a minimum requirement of 1.5 times the pull-out force of the German standard weight, ensuring excellent position stability.

Testing the deformation of the cushioning insert in response to vertical force significantly reduces the risk of a grating or cover being ejected from its frame.

According to the manufacturer's specifications, a trial phase is performed prior to the market launch. The trial phase is followed by a one-year monitoring phase according to the quality requirements of RAL-GZ 692 after the market launch.
The seal of quality is awarded no earlier than after 12 months if the product approval has a positive result and the third-party monitoring institute has confirmed compliance with all requirements.

When the RAL quality directives for RAL-GZ 692 were revised in 2019, additional practical safety criteria were adopted. The GET specifications certificates list, clearly and at a glance, for each item with the RAL seal of quality which additional requirements these products must meet compared with DIN EN 124.

The sewer casting specifications certificate is available for download on the GET homepage at

www.get-guete.de/leistungsbescheinigungen/kanalguss

MeierGuss sets the benchmark for quality

Our products are "Made in Germany" and are manufactured at three production sites in Germany. The MeierGuss Group is one of the few suppliers in the field of sewer casting products whose German distribution company and production sites are fully certified in accordance with DIN EN ISO 9001, DIN EN ISO 14001 and DIN EN ISO 50001.

All products for road drainage meet the required safety standards and are regularly monitored by independent institutes.

The third-party monitoring of our products is performed by KIWA, which specialises in quality testing and certification of products and systems as well as environmental protection services in Germany.

The GET Quality Association for Drainage Technology (Gütegemeinschaft Entwässerungstechnik e.V.) confirms that our certified products comply with the special quality assurance for sewer casting RAL-GZ 692 and are therefore permitted to bear the sewer casting seal of quality.

The expanded warranty on sewer castings monitored by a third party allows us to ensure not just the quality but also the economic efficiency of our long-lived products.

ISO 9001
ISO 14001
ISO 50001
BUREAU VERITAS Certification

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For our tender and contact information online, please visit us at: www.meierguss.de

MEIERGUSS

Dimension standard + RAL – an unbeatably safe combination

1 | 10 | 2021 | 10061-GB | Subject to change

Interesting facts about DIN standards, Dimensional standards and the RAL seal of quality RAL-GZ 692 for sewer casting

Standard and their significance

Traffic load, in particular heavy-duty traffic, is on the rise. In an increasingly diverse market of products and suppliers, standards and seals of quality are becoming more and more important as a decision-making tool. This short guide is intended to help you select and purchase the right product when you are looking for safety-relevant sewer casting components. Comparing apples and oranges can result in a high risk to operational and traffic safety and the user is left with the resulting costs.

DIN EN 124:2015 – The minimum requirement

DIN EN 124:2015 defines basic characteristics and is merely the minimum requirement for road sewer casting. A crucial feature for operational and traffic safety of manhole covers and street gullies is their traffic-proof positional stability, for instance to avoid ejection of the cover and/or grating from its frame. According to the standard, the following methods can be used to achieve this:

- A locking mechanism
- Sufficient mass per unit area (standard weight regulations for Germany according to DIN 1229)
- A „specific shape“

However, DIN EN 124:2015 does not regulate important product features. This creates gaps which can lead to increased risk. For instance, no minimum requirements are defined for cushioning inserts or resistance to freezing/de-icing chemicals. The manufacturer is given free rein.

Simple tendering according to DIN EN 124 2015 therefore involves a high risk. For this reason, there are additional DIN standards and seals of quality to fill this content gap and to act as a decision-making tool for increased safety.

DIN 1229 – Sufficient mass

DIN 1229 is a supplementary standard and governs standard weights for loosely positioned covers and/or gratings of classes C 250 to F 900. According to DIN 1229, a cover of class D 400 with the standard clearance of 610 mm must weigh at least 87.7 kg. German standard weights are among the highest in Europe and have proven in the past decades that they can withstand high traffic volumes in day-to-day use. Unlike locking mechanisms such as springs or screws, cover dimensions in accordance with DIN 1229 are not subject to wear.

Dimension standard, e.g. DIN 19584 – Sufficient mass and precise specification of quality criteria

An advantage of dimension standards is that they make it possible to define products exclusively through dimension standard designations in tendering, making them comparable. These products are also interchangeable with products of other manufacturers and suitable spare parts can be acquired.

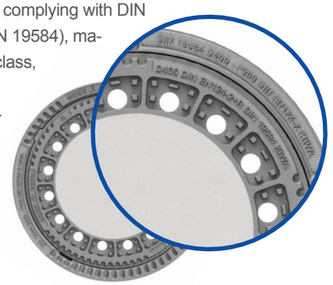
The dimension standard DIN 19584 describes a standard manhole cover of load class D 400 in detail. It defines, for instance, dimensions and weights as well as materials and appearance. For example, the minimum total weight of frame and cover is 176 kg, the cast content is precisely defined, an uninterrupted cast tub and inserts are required. This prevents the danger of „false advertising“, provided manufacturers meet all requirements. There are good reasons why this manhole cover is the most frequently used product in load class D 400 in the German market for standard requirements: It is distinguished by its long service life and long-lasting function. This reduces the frequency of damage and repairs. Experience proves excellence!

Dimensional standards – Correct marking

Products following the dimensional standard must be marked with the standard on the cover and the frame! For this reason, always check the mark on the cover and the frame.

Correct marking of a manhole cover according to DIN 19584

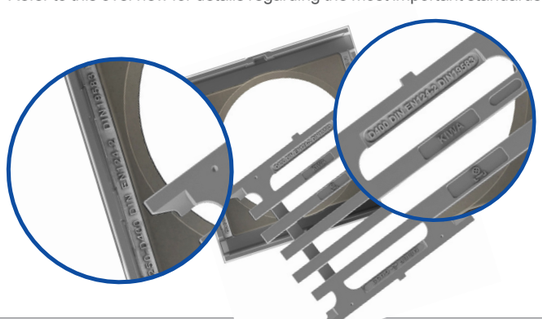
The DIN standard requires the following marking on top of the cover and frame for manhole covers complying with DIN 19584 : DIN main number (DIN 19584), manufacturer identification, load class, e.g. D 400 or D 400 - F 900, Number of the European standard (EN 124) and if applicable the identifier for the third-party monitoring body. Additional identifiers are permissible. For details, visit thewebsite of the Beuth publishing company *www.beuth.de*.



Correct marking of a gully top according to DIN 19583

The DIN standard requires the following marking on top of the grating for gully tops complying with DIN 19583 : DIN main number (DIN 19583), manufacturer identification, load class, e.g. C 250 or D 400 and the number of the European standard for gully tops (EN 124). The frame must also be marked with the DIN main number (DIN 19583), the manufacturer identification, the suitable load class (e.g. C 250 - D 400) and the number of the European standard (EN 124). Additional identifiers are permissible. For details visit the website of the Beuth publishing company *www.beuth.de*.

Refer to this overview for details regarding the most important standards.



Overview of the most important dimensional standards

MANHOLE COVERS DIN

DIN 19584

Manhole covers for entry and inspection shafts | Load class D 400 for traffic areas approved for all types of road traffic | Nominal width 600 mm | Cover with ventilation openings

DIN 19596

Manhole covers for entry and inspection shafts | Load classes A 15 and B 125 for foot traffic and passenger car areas | Nominal width 600 and 800 mm | Cover without ventilation openings

DIN 4271

Manhole covers for entry and inspection shafts with round or square frame | Load class B 125 for foot traffic and passenger car areas | Nominal width 600 mm | Cover with ventilation openings

GULLY TOPS DIN

DIN 19583

Gully tops for street gullies | Load classes C 250 and D 400, for gullies in traffic areas | Outer dimensions 500 x 500 mm (nominal dimension) | Platform-shaped surface

DIN 19571

Gully tops for street gullies | Load class C 250 for gullies in traffic areas (frames of this standard are also suitable for installation situations of class D) | Outer dimensions 500 x 500 mm (nominal dimension) | Channel-shaped surface

DIN 19594

Gully tops for street gullies | Load class C 250, for gullies in traffic areas | Outer dimensions 300 x 500 mm (nominal dimension) | Platform-shaped surface