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Standards

Standard Recommendation
S.R. CEN/TR 16017:2010

Guide to the use of EN 598

S.R. CEN/TR 16017:2010

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SWiFT xxx: A rapidly developed recommendatory document based on the consensus of the participants of an NSAI workshop.

<i>This document replaces:</i>	<i>This document is based on:</i> CEN/TR 16017:2010	<i>Published:</i> 8 September, 2010
This document was published under the authority of the NSAI and comes into effect on: 20 September, 2010		ICS number: 23.040.40 23.040.10
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Údarás um Chaighdeáin Náisiúnta na hÉireann		

ICS 23.040.40; 23.040.10

English Version

Guide to the use of EN 598

Guide pour l'utilisation de l'EN 598

Hinweise zur Anwendung von EN 598

This Technical Report was approved by CEN on 20 March 2010. It has been drawn up by the Technical Committee CEN/TC 203.

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Foreword

This document (CEN/TR 16017:2010) has been prepared by Technical Committee CEN/TC 203 “Cast iron pipes, fittings and their joints”, the secretariat of which is held by AFNOR.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

EN 598 deals with components of piping systems for sewerage – pipes, fittings, accessories and joints – which together, form the part of a sewerage network. Each of these components can be manufactured by a different supplier, which is often the reality; the performances and the tests required by EN 598, although perfectly comprehensive, are not always formulated with enough accuracy to be easily used in every real situation occurring in the market.

In regard to quality assurance, the attestations and certifications of conformity to the standards available on the markets:

attestation of compliance to the performance tests;

certification of conformity of the products of a batch;

certification of conformity to EN ISO 9001 of the supplier;

national quality or conformity marks;

third party certification of conformity of products to a standard;

self-declaration of conformity to a standard by the supplier for products that he sells,

have different meanings for the customer, who generally needs all products to be fully in compliance with this standard.

In addition EN 598 is now a harmonized standard prepared under the Mandate M/131 “Pipes, tanks and ancillaries not in contact with water intended for human consumption” and as such products should be CE marked.

Scope

EN 598 specifies the requirements and associated test methods applicable to ductile iron pipes, fittings, accessories and their joints for the construction of drains and sewers outside buildings:

- operating without pressure (gravity sewerage), or with positive or negative pressure;
- to be installed below or above ground;
- to convey surface water, domestic waste water and certain types of industrial effluents, either in separate systems or in combined systems.

This technical report:

- explains in more detail the process of testing for the performance tests;
- explains in more detail the benefits of high alumina cement lining;
- explains in more detail the definitions of the different types/levels of attestation to enable customers to ensure their requirements are fulfilled;
- explains in more detail the ways of certification of conformity with EN 598 for a reliable evaluation of the performance of products;
- explains in more detail CE marking and its relevance i.e. the CE mark is not a mark of conformity with a standard but only a self-declaration concerning the CPD essential requirements.

In order to make the use of this Technical Report easier, the clauses of this document refer to the corresponding clause numbers in EN 598.

4.1.3.1 Gasket materials

Gaskets for sewerage application are manufactured from rubber in compliance with EN 681-1 type WC or WG. This ensures that the gasket is unaffected by any hydro-carbons discharged from the sewerage environment. In addition, the designated rubber offers the required resistance to benzene derivatives, such as those contained in oily waste.

4.4.3 Internal lining of high alumina cement mortar

Ductile iron pipes for sewerage applications are internally lined with high alumina cement mortar as standard thus protecting the internal surface of the ductile iron pipes against corrosion and tuberculation. High alumina cement lining provides a high resistance to both chemical and septic (biogenic corrosion of cement mortar lining) attack found in the vast majority of sewers. Similarly, it offers excellent resistance to abrasion brought about by the impact of solid particles contained in the effluent. The performance of both of these is ensured by the tests detailed in EN 598 sub-clauses 5.8 Chemical resistance and 5.9 Abrasion resistance.

Linings with a high compressive strength (min 50 MPa - see 5.10), also exhibit high density, good adhesion and low porosity: all of which parameters are conducive to a long working life.

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