Line pipes DIN EN ISO 3183 / DIN EN 10208

Brief overview and comparison

When DIN EN ISO 3183 came into force in March 2013, it replaced the previously valid standards DIN EN 10208-1 and -2 – line pipes for gas for combustible media.

This new standard is based on ISO 3183:2007 and API 5L. With this, the American USC system has been put on an equal footing alongside the international units (SI). With PSL 1 and PSL 2 the standard distinguishes between two specification levels. PSL 1 is considered as the standard specification level. PSL 2 stipulates additional binding requirements on chemical compositions and mechanical properties. The standard has been amended by the special annex M which aligns the new standard to the key definitions of DIN EN 10208-2.

The steel grade L235 has been removed from both specification levels. Through the inclusion of special API steel grades and expansion of the strength ranges, today 11 (PSL 1) / 31 (PSL 2) steel grades are available. The spectrum ranges from 175 MPa to 485 MPa. By way of comparison: With DIN EN 10208, the range was 210 MPa to 360 MPa.

Operating area and requirements

DIN EN ISO 3183	DIN EN 10208
Replacement for basics acc. to EN 10208, ISO 3183 an API 5L Subdividet in PSL1 and 2 · **PSL 1 (Product Specification Level)** Standard class requirements. Admittance of further seven steel types. · **PSL 2 (Product Specification Level)** Additional requirements does apply to chemical configuration and mechanical performance. Admittance of eleven new steel types.	The standard subdividet in two requirement classes: · **Requirement class A** Application in low-pressure area (≤ 16 bar operating pressure) · **Requirement class B** Application in pipeline construction (≥ 16 bar operating pressure)

Order information

DIN EN ISO 3183 Regular information to be given in orders	**DIN EN 10208** Obligatory information to be given in orders
Ordered quantity, PSL1 or PSL 2, type of pipe, advice to standard, steels-short names, outside diameter and wall thickness, Certification of Application of attachment, type of test certificate	Ordered quantity, type of pipe (seamless or welded), product form (pipe), outside diameter and wall thickness, manufactured length, Standard (EN 10208-1 /-2), steels-short names / material number, without or within impact test, type of test certificate

Further obligatory information

DIN EN ISO 3183 Regular order information	**DIN EN 10208** Obligatory order information
· Chemical configuration for pipes with a wall thickness ≥ 25mm · Limits of carbon equivalent to PSL 2-pipes consisting of L415N · Limits of carbon equivalent to PSL 2-seamless pipes with a wall thickness > 20 mm	· Chemical configuration of pipes with a wall thickness > 25 mm · Mechanical performance of pipes with a wall thickness > 25 mm · Requirements to notch impact test for pipes with a wall thickness > 25 mm
Optionally agreements: In total 59 options, e.g. PSL 2- pipes for natural gas transport in application for european Onshore area acc. to attachment M.	**Optional agreements:** In total 32 options, e.g. from 0° different test temperature to impact test

Comparable materials

In EN ISO 3183, the materials are specified without material numbers. Annex L of the standard includes the table L.1, which assigns the materials to the European material numbers according to DIN EN 10027-2. The material designations of DIN EN 10208 are listed in the normative annex M with only minor changes. The previous material numbers thus continue to apply unchanged.