

Trial lot for plates in thickness over 40 mm – 70 mt

Name of material: hot-rolled plate

Scope and Delivery Condition: Hot-rolled plate is delivered in not-pickled condition and without oil coating. The normalizing (N) is to be replaced by identical heat treatment during hot-working.

Dimensions of plate with trimmed edges and cut ends expressed in mm shall conform to requirements of table 1.

Table 1

Thickness	Width	Fixed length / Length range
from 8 to 40 inclusive	1500	6000; 7000
from 8 to 35 inclusive		8000
40		7000-7500 *
45		6000-6500 *
50		3500
from 8 to 40 inclusive	2000	4000; 5000
from 8 to 35 inclusive		6000
from 8 to 25 inclusive		7000; 8000
30		7000-7500 *
40		5500-6000 *
45; 50		4000-5000 *

* The length range means, that plates are delivered in various lengths from indicated range, the lengths are at the discretion of the Producer.

Notes

1 The cutting obliquity shall not cause plate being outside the permissible variations in length.

2 It is allowed to deliver separate plates with flame cut of edge and/or ends.

The plates are delivered as per DIN EN 10029:2011, permissible variations in thickness – class A.

Desirable deviation from flatness for plates in thickness:

- up to 25 mm incl. – no more than 7 mm per a meter of length,
- over 25 mm to 40 mm incl.- no more than 6 mm per a meter of length,
- over 40 mm - no more than 5 mm per a meter of length.

Actual deviation from flatness shall be no more than 10 mm per a meter of length for plates in all thicknesses.

Surface quality: Class A of subgroup 1 DIN EN 10163-2:2005.

Surface is checked visually without using magnifying devices.

Antirust treatment is not carried out. The rust on the surface of plates shall not be considered as defective.

Chemical composition of steel based on heat analysis shall conform to requirements of table 2, % by mass.

Table 2

C	Mn	Si	P	S	Cu	Ni	Cr	N	Al	Mo	V	Ti	Nb
0,17	1,40	0,30	0,035	0,035	0,20	0,20	0,20	0,012	+	+	+	+	+
max	max	max	max	max	max	max	max	max					

Notes

1 The symbol «+» means that mass content of element is not specified, but checked and shall be reported in the inspection certificate.

2 The carbon equivalent *CEV* shall be determined as follows:

$$CEV = C + \frac{Mn}{6} + \frac{Cr + Mo + V}{5} + \frac{Ni + Cu}{15}$$

Value of carbon equivalent shall conform to requirements of table 6 of DIN EN 10025-2:2005.

When calculating the carbon equivalent value, the mass content of the elements reported in the inspection certificate shall be used in the formula.

Sampling and sample preparation for the determination of chemical composition of steel shall comply with DIN EN ISO 14284:2003 or GOST R ISO 14284-2009.

Measuring technique of mass content of elements in steel shall be at the discretion of the Producer.

Permissible variations in product analysis (made by the Customer) shall conform to requirements of table 3, %.

Table 3

C	Mn	Si	P	S	N
+0,02	+0,10	+0,02	+0,005	+0,005	+0,002

Macrostructure of plates shall be free of delaminations. The absence of delaminations is guaranteed by Producer's technology.

Mechanical properties and impact energy shall conform to requirements of tables 7 and 9 DIN EN 10025-2:2005.

Tensile testing is carried out as per ISO 6892-1:2009(E). Test pieces dimensions are at the discretion of the Producer.

Impact testing is carried out as per ISO 148-1:2009(E).

One plate per lot shall be subject to inspection to determine mechanical properties and impact energy.

Sampling is as per Producer's practice.

UST as per DIN EN 10160:1999, quality class S₁ as per table 3, class E₁ as per table 5 - for edges.

The extent of testing is 100 %.

Rules of acceptance: plates are delivered by lots. The lot shall consist of plates from the same heat and size. 10 % of plates per a lot shall be subject to shape and dimensions inspection.

Dimensions and shape of plates shall be measured as per Producer's practice with measuring means providing suitable accuracy of measurement.

Unspecified rules of acceptance, test methods and extent of testing, sampling and test pieces selection, testing and re-testing procedure, measuring means and equipment that provide suitable accuracy when checking the tested parameters, the calibration of measuring means and equipment shall be at the discretion of the Producer.

Rounding of numbers: carried out as per ISO 80000-1:2009(E) (rule B).

Packing: Plates are delivered in bundle without strapping as per Producer's practice. The mass of a bundle shall not exceed 8 mt.

Each bundle is accompanied by packing list including number of plates per a bundle.

Marking on plates: shall be painted or hot stamped with conventional numeric code (steel grade and heat number shall be decoded in the inspection certificate).

Marking on the top plate of the bundle: one thermostable tag shall be attached to the top plate of each bundle.

Marking shall include heat number, steel grade, sizes of plates.

Marking on tags: heat number, steel grade, size, mass and CE marking . At least two tags are attached to the bundle with transverse strapping tape in one turn.

Inspection Certificate: in accordance with DIN EN 10204:2005 3.1, reporting normative documentation (DIN EN 10025-2:2005+MS 87-239 020217), all the tested parameters, referencing all the applied standards, stating «Material is free from radiation and mercury contamination" and with CE marking.

Customer's Signature

Producer's Signature

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- 1) The requirements of indicated standard are to be fulfilled, taking into consideration the following additions, alterations and definitions.

It is allowed to use the reference standards of the later edition date with reporting in the inspection certificate.

DIN EN 10025-2:2005+MS 87-239 020217 shall be reported in the order.