

# DIWIND

## Offshore steel grade with CE-marking

### Specification DH-E83-B, edition April 2016

Occasionally, depending on the location of an offshore wind farm, construction material with a mark showing the conformity to the Construction Products Regulation (CPR) is demanded (CE-mark). This means for heavy plates, that they have to comply with the harmonized standard EN 10025. However, because of the better toughness properties as well as the better weldability often offshore steel grades according to EN 10225 are requested by designers and fabricators (e.g. for substations, jackets etc.).

As EN 10225 is not a harmonized standard, it is insufficient for issuing a CE-mark.

Via a combination of two steel grades the specification DIWIND offers high offshore steel grades with CE-marking. Additionally it guaranties even further improved carbon equivalents compared to the offshore standard EN 10225.

## Product description

### Designation and range of application

The DIWIND specification applies to the following grades of EN 10225 in the thickness range stated below:

Grade	Plate thickness t [mm]
S355G7+M, S355G8+M, S355G9+M, S355G10+M	$8 \leq t \leq 100$
S355G10+N	$6 \leq t \leq 150$
S460G1+M, S460G2+M	$8 \leq t \leq 100$

DIWIND can be supplied in accordance with the standard [dimensional charts](#) for the offshore structural steels.

In many cases also other dimensions are possible.

## Chemical composition

Maximum carbon equivalents:

Steel Grade	Plate thickness t [mm]	max. CEV <sup>a</sup>	max. CEV acc. to EN 10225
S355GX+M + DIWIND	8 ≤ t ≤ 40	0.38	0.41/0.42 <sup>b</sup>
	40 < t ≤ 100	0.39	
S355G10+N + DIWIND	6 ≤ t ≤ 150	0.42	0.43
S460GX+M + DIWIND	8 ≤ t ≤ 40	0.41	0.43
	40 < t ≤ 100	0.40	

<sup>a</sup> CEV = C + Mn/6 + (Cr + Mo + V)/5 + (Ni + Cu)/15

<sup>b</sup> for thickness > 75 mm

## Delivery condition

In accordance with ordered steel grade acc. to EN 10225.

## Order example

S355G10+M + DIWIND

## Requirements

Additionally to the requirements of the EN 10225, the requirements according to EN 10025-3 or EN 10025-4 are fulfilled:

DIWIND Grades	Additionally fullfills requirements of
S355GX+M + DIWIND	S355ML acc. to EN 10025-4
S355G10+N + DIWIND	S355NL acc. to EN 10025-3
S460GX+M + DIWIND	S460ML acc. to EN 10025-4

## Test certificate

Unless otherwise agreed, the test results from testing performed in accordance with EN 10225 as well as from testing performed in accordance with the respective part of EN 10025 are documented in a certificate 3.1 in accordance with EN 10204. The Certificate also includes the CE-mark.

## Identification of plates

If not agreed otherwise, the following marking is performed using low-stress steel stamps:

- Grade (e.g. S355G10+M + DIWIND)
- Heat number
- Number of mother plate and individual plate
- Manufacturer's symbol
- Authorised inspection representative's sign

## General technical delivery requirements

Unless otherwise agreed, the general technical delivery requirements acc. to EN 10021 apply.

## Tolerances and Surface quality

Unless otherwise agreed, tolerances are in accordance with 10029, with class A for the thickness.

Unless otherwise agreed, the specifications for surface quality will be in accordance with EN 10163, class A3.

## General note

Special characteristics not covered in this data sheet but required as a result of the intended application and/or intended working of the material must be agreed prior to placement of the corresponding order.

The information shown on this data sheet constitutes only a product description. This data sheet is updated as and when necessary. The latest version of this data sheet is in all cases definitive and can be obtained from us on request or can be downloaded from [www.dillinger.de](http://www.dillinger.de).

## Contact

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