

Structural steels, hot dip galvanized

Properties

Material description

The structural, zinc, aluminium-zinc alloy and zinc-iron alloy coated steels are supplied in grades in accordance with EN 10346.

The forming properties of the steel grades S220GD, S250GD and S280GD are moderate and they are suitable for seaming. The steel grade S320GD is suitable for bending and other moderate forming. Suitable applications are corrugated sheets and various sections. S350GD is optimally used for the fabrication of load-bearing corrugated sheet materials, light purlins, nail plates and various sections.

Structural, zinc, aluminium-zinc alloy and zinc-iron alloy coated steels manufactured using the oxygen blowing process, are aluminium killed sheet steels, which are coated on a continuous hot dip galvanising line.

| Steel grade | Yield strength R _{p02} or R _{eH} ²⁾ Mpa Minimum | Tensile strength R _m Mpa Minimum | Elongation A ₈₀ % Minimum Thickness, mm | | |
|-------------|---|--|---|---------------|--------|
| | | | ≤ 0.50 | > 0.50 – 0.70 | > 0.70 |
| S220GD | 220 | 300 | 16 | 18 | 20 |
| S250GD | 250 | 330 | 15 | 17 | 19 |
| S280GD | 280 | 360 | 14 | 16 | 18 |
| S320GD | 320 | 390 | 13 | 15 | 17 |
| S350GD | 350 | 420 | 12 | 14 | 16 |

1) The values apply to longitudinal test pieces.

2) If the yield strength is pronounced, the values apply to the upper yield point ReH.

Chemical composition

| | Content %, maximum | | | | |
|--------|--------------------|------|------|------|-------|
| | C | Si | Mn | P | S |
| S220GD | 0.20 | 0.60 | 1.70 | 0.10 | 0.045 |
| S250GD | 0.20 | 0.60 | 1.70 | 0.10 | 0.045 |
| S280GD | 0.20 | 0.60 | 1.70 | 0.10 | 0.045 |
| S320GD | 0.20 | 0.60 | 1.70 | 0.10 | 0.045 |
| S350GD | 0.20 | 0.60 | 1.70 | 0.10 | 0.045 |

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