

1.2312
stock sizes [mm]

flat bars, squares; blocks

to 1000 mm width and 600 mm thickness; cut to required size (toughened to 30 HRC)

Description:

heat treated steel to reach approx. hardness of 30 HRC, very good machinability (due to no sulphur content better than 1.2311), polishability worse than 1.2311

Application:

injection moulds, large bodies and inserts for plastic moulds and pressure moulds, where high polishability is not required

Chemical composition [%]

| C | Mn | Si | P | S | Cr | Ni | Mo | W | V | Co | Cu |
|-----------|---------|---------|----------|----------|---------|----|-----------|---|---|----|----|
| 0,35-0,45 | 1,4-1,6 | 0,3-0,5 | max 0,03 | 0,05-0,1 | 1,8-2,1 | - | 0,15-0,25 | - | - | - | - |

Equivalents

| PN | W. nr | EN | AISI | Russia (GOST) | Other |
|----|--------|-------------|-------|---------------|-------|
| - | 1.2312 | 40CrMnMoS86 | P20TS | - | M200 |

Processes

| | | |
|-----------|-----|----------------------|
| nitriding | YES | |
| hardening | YES | temp. 830 - 870 [°C] |
| tempering | YES | temp. 480 - 600 [°C] |

Hardness

| | |
|------------------|--------|
| after toughening | 51 HRC |
| after softening | 235 HB |