

| WCLV (1.2344)         | stock sizes [mm]                            |
|-----------------------|---|
| plates                | to 1000 mm width and 300 mm thickness       |
| round bars            | from $\Phi$ 10 mm to $\Phi$ 603 mm diameter |
| flat bars and squares | from 40 mm to 600 mm width                  |

#### Description:

hot work tool steel, with high hardness and tensile strength in high temperatures, good thermal conductivity and crack resistance in high temperatures, less resistant to cooling down with water

#### Application:

extruding dies and punches, backing-up rolls, small-sized pressure casting dies, components of presses for stamping light metals, plastic mould components, hot cutting shears and guillotine shears

#### Chemical composition [%]

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

#### Equivalents

| PN   | W. nr  | EN          | AISI       | Russia (GOST) | Other      |
|------|--------|-------------|------------|---------------|------------|
| WCLV | 1.2344 | X40CrMoV511 | 6408A /H13 | 4Ch5MF1S      | W302/19554 |

#### Processes

|           |     |                                  |
|-----------|-----|----------------------------------|
| welding   | NO  |                                  |
| forging   | YES |                                  |
| rolling   | YES |                                  |
| nitriding | YES |                                  |
| hardening | YES | temp. 1000 - 1050 [°C] oil / air |
| tempering | YES | temp. 450 - 550 [°C]             |

#### Hardness

|                  |        |
|------------------|--------|
| after toughening | 56 HRC |
| after softening  | 230 HB |