### MECHANICAL PROPERTIES

#### Designation | Heat treatment °C | Test at room temperature | Test at elevated temperature
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#### Designation | Symbol 1) | Normalizing (+N) or Quenching (+ Q) 1) | Tempering (+T) | Tensile test | Impact test | Tensile test |
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### Chemical composition (cast analysis) (% min.)

| Designation | Number | Symbol | HEATING | C | Si max | Mn | P max | S max | Cr | Mo | Ni | others |
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1) For castings of ruling thickness <28 mm, % 0.030 S is permitted

2) If there are alternative specifications for heat treatment, the requested alternative shall be indicated on the order, e.g.: GP240GH +QT1 or 1.0619 +QT1

*) 1 Mpa = 1 N/mm²

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1) +Q means quenching media: air or liquid. +T = tempering. +N=normalizing

2) + AT = annealing + water quenching

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1) The heat treatment for all the steel grades is +AT +QW (solution annealing + water quenching)

2) After solution annealing at high temperature, castings may be cooled down to 1040 °C to 1010 °C prior to water quenching in order to prevent corrosion and prevent cracks in complex shapes.

3) As far as steel castings for pressure vessel are concerned the austenitic-ferritic steel are not considered in their age hardened condition.

4) For similar reasons as those concerning note 3) the austenitic-ferritic steel have not to be used for temperatures higher then 250 °C in pressure vessel applications.

5) Rp0,2 may be estimated by lowering Rp0,1 by 25 Mpa.

6) Rp2.