

ABSTRACT**Nickel-based alloy for manufacturing pipeline tubes**

The invention relates to an alloy having the following composition, by weight:

$$16.5\% \leq \text{Cr} \leq 25.0\%$$

$$11.0\% \leq \text{Mo} \leq 18.0\%$$

$$2.0\% \leq \text{W} \leq 7.0\%$$

$$\text{Fe} \leq 1.0\%$$

$$\text{Mo} + \text{W} \leq -0.5 \times (\text{Cr} + \text{Fe}) + 30\%$$

$$\text{Mo} + \text{W} \geq -0.5 \times (\text{Cr} + \text{Fe}) + 25\%$$

$$\text{Ti} + \text{Ta} \leq 0.80\%$$

$$0.01\% \leq \text{Si} \leq 0.75\%$$

$$0.01\% \leq \text{Al} \leq 0.35\%$$

$$0.01\% \leq \text{Mn} \leq 0.35\%$$

$$\text{Ca} \leq 0.005\%$$

$$\text{Mg} \leq 0.005\%$$

$$\text{Nb} \leq 0.01\%$$

$$0.001\% \leq \text{C} \leq 0.05\%$$

$$0.001\% \leq \text{N} \leq 0.05\%$$

$$\text{S} \leq 0.003\%$$

$$\text{P} \leq 0.005\%$$

optionally, $0.0010\% \leq \text{rare earths} \leq 0.015\%$, the silicon content being less than or equal to 0.25% in the presence of rare earths at a content comprised between 0.0010% and 0.015%,

the rest being nickel and unavoidable impurities resulting from the manufacturing, the nickel content being greater than or equal to 54%.

Figure 1