

(57) Abstract: The invention deals with a cold rolled and hot dip coated steel sheet presenting a tensile strength above $1000 - 50 \times A_I$ MPa, a uniform elongation above 15% and a low density. The steel comprises, by weight percent:

$0,1 \leq C \leq 0,5 \%$, $3,5 \leq Mn < 10,0 \%$, $0 \leq A_I \leq 9,0 \%$, $Si \leq 5,0 \%$, $Ti \leq 0,2 \%$, $V \leq 0,2 \%$, $Nb \leq 0,2 \%$, $S \leq 0,004 \%$, $P \leq 0,025 \%$, $0,5 \leq Si + A_I \leq 9,0 \%$, $B \leq 0,0035$, $Cr \leq 1 \%$

The balance being Fe and impurities and the microstructure containing 25 % to 90 % of ferrite, 10% to 50 % of austenite, kappa precipitates lower than 5 % and martensite lower than 25 %. The steel according to the invention presents the ability to be coated using total oxidation.