Title (en)

AL-SI-MG ALLOY SHEET METAL FOR MOTOR CAR BODY OUTER PANEL

Title (de)

BLECH AUS AL-SI-MG-LEGIERUNG FÜR KARROSERIE VON KRAFTFAHRZEUGEN

Title (fr)

TOLE EN ALLIAGE AL-SI-MG POUR PEAU DE CARROSSERIE AUTOMOBILE

Publication

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Application

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Abstract (en)

[origin: WO03066919A2] The invention concerns a sheet metal for a motor vehicle body outer panel, having a thickness ranging between 0.8 and 1.2 mm, consisting in wt. % of: Fe: 0.25-0.40 and preferably: 0.25-0.35; Si: 0.90-1.20 and preferably: 0.95-1.10; Cu: 0.10-0.25 and preferably: 0.15-0.20; Mg: 0.35-0.50 and preferably: 0.40-0.50; Mn: 0.05-0.20 and preferably: 0.08-0.15; other elements < 0.05 each and < 0.15 in total, the rest being aluminium, having after solution heat treatment, quenching, pre-tempering or reversion, and maturation at room temperature for 3 weeks to 6 months, an L R0.2 direction yield strength less than 160 MPa's, and preferably less than 150 MPa's. A yield strength > 180 MPa's can be obtained on the body stamping part after the paints have been cured. The inventive sheet metal enable to reduce the thickness of parts while satisfying all the other required properties.

IPC 8 full level

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