Kaizen COLD FORMED STEEL

S 700

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EN 10149 -2

HOT ROLLED, HIGH STRENGTH STEEL FOR COLD FORMING

ABOUT THIS PRODUCT:

S700MC is a hot-rolled, high-strength low-alloy steel. It combines high strength with outstanding formability and consistent quality. It also delivers exceptional weldability for fast and efficient processing. S700MC is increasingly in demand to replacelower grade steels in a wide range of demanding product applications.

The high yield strength of S700MC delivers improved load-bearing capacity without weight penalties. Its strength also enables production of lighter components for applications where weight savings are a prime consideration. Down-gauging offers an additional benefit of increased yield per tonne of steel.

APPLICATION:

The extra high strength steel grades are used in applications such as truck chassis, cranes and earthmoving machines. In these applications, the high strength of the steels is used to save weight and/or to increase the payload. As a result of this and the good formability of the steels, the total costs can be reduced.

TRUCK CHASSIS

CRANE BOOMS

COMMERCIAL VEHICLE BODIES

MINING & CONSTRUCTION EQUIPMENTS

MECHANICAL PROPERTIES:

Yield strength $R_{p0,2}$ (MPa)		Tensile strength R_m (MPa)		Elongation A_{80} %	Min bending radius 90° bend	Surface Hardness (BHN)	Impact Strength (j)	
min	max	min	max	min	Ri/t [1) 2)]	max	Test Temp	min
700	900	750	980	11	1.5 x t	250	- 20 °C	40 J
							- 40 °C	27 J

The mechanical properties are valid in the transverse direction of rolling

1) t = Sheet thickness *2) For rolling direction and transverse direction*

MECHANICAL PROPERTIES:

C %	Si %	Mn %	P %	S %	Al %	Nb %	Ti %	V %
Max	Max	Max	Max	Max	Max	Max	Max	Max
0.12	0.2	1.9	0.01	0.002	0.04	0.015	-	-