

MILD STEEL: (LOW CARBON) _Cold Rolled Sheet
ZINC ELECTROPLATED
DSM 1.1.10

Definition:

Electroplated coatings are created by applying zinc to steel sheet and strip by an electro-deposition process. This very thin ($\leq 9 \mu\text{m}/\text{per side}$) ductile coating is a continuous operation during manufacture at the steel mill. Sheet or strip is fed through entry equipment into a series of washes and rinses then into the zinc plating bath. The most common zinc electrolyte-anode arrangement uses lead-silver or soluble anodes of pure zinc. The coating develops as positively charged zinc ions in the solution are electrically reduced to zinc metal and deposited on the positively charged cathode (sheet steel). Then a chemical treatment is applied to inhibit the development of white rust (powdery deposit) & improve paint application.

Features:

Zinc offers more corrosion resistance than steel, and more protection than any other substance such as paint or powder-coating. Low-cost combined with ease of application, make zinc an ideal substance for metal protection and galvanization.

Note:

- Electroplated coatings are not intended to withstand outdoor exposure without chemical treatment or painting. If this is a requirement, use **DSM 1.1.12**

ASM (DEK) Applications:

Suitable for light weight sheet metal fabrications offering non-fingerprint & corrosion resistance for interior applications.

Note:

- Toxic gases are released during welding. Respirators/Ventilation systems must be used.
- Punched holes & cut edges will create uncoated areas.

These values are representative and should not be considered as definitive. For critical applications, refer to material data-sheet.

TYPICAL MECHANICAL PROPERTIES @25°C	
DENSITY:	7860 Kg/m ³
YOUNGS MODULUS:	200 GPa
POISSONS RATIO:	0.27 - 0.3
YIELD STRENGTH	140 MPa @ 0,8 mm wall
Max. TENSILE STRENGTH	270 - 410 MPa

Issue	01	02	03	04	05	06	07	08	09
DCR	44682	44895							

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CHEMICAL ANALYSIS		BENEFIT
Carbon	0,12	Good for forming, welding. Malleable & ductile.
Silicon	0,5 max	Good for galvanising purposes
Mang	0,60	Combines with sulphur: good machining & finish.
Phos	0.045 max	Low content, good for malleability.
Sulphur	0.045 max	Low content, good for machining & welding.

CURRENT INTERNATIONAL SPECIFICATION COMPARISON	
BRITISH: BS	BS EN 10152: 2017: DC01+ZE
GERMAN: DIN	St12+ZE
AMERICAN: ASTM	A366
JAPANESE GRADE	JIS G 3313 SECC
CHINESE GRADE	----

These sizes are given in good faith and should not be considered as definitive

SHEET SIZE (mm)			
2000 x 1000 x 0,7mm	2000 x 1000 x 0,9mm	2500 x 1250 x 1,2mm	2500 x 1250 x 2,0mm
2500 x 1250 x 0,7mm	2500 x 1250 x 0,9mm	2500 x 1250 x 1,5mm	2500 x 1250 x 3,0mm

Alternatives:

Note:

- This is the preferred grade of pre-coated cold rolled steel.
- If not available, the vendor can substitute **DSM 1.1.12** without prior consent.

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