

## © Electro Galvanized Steel Coil(EGI)



Electric galvanized steel is pure-Zn, Zn-Fe, Zn-Ni  
boast excellent paintability, corrosion resistance, weldability,  
and workability. Electro galvanized sheets are used in  
various applications, including automobiles and home appliances. They are also  
excellent for making metal furniture.  
To enhance the quality and versatility of its electro  
galvanized steel, POSCO engages in constant R&D  
efforts to develop high end materials

- Specification

Use	Standard				Tensile strength	(Elongation%)	
	POSCO	KS	JIS	ASTM	(KGF/ mm <sup>2</sup> )		
For general use (hard-machining)	EGSC	SECC	SECC	A591-CQ	28	32-37	
For processing	EGSD	SECD	SECD	A591-DQ	28	36-41	
For trepanning	EGSP	SECE	SECE	A591-DQSK	28	36-41	
For non aging trepanning	EGSE	SECEN	SECEN	-	28	36-43	
For extra deep drawing	EGSE	-	-	-	28	44-50	
Structural purpose	EG30-58	-	-	-	30-58	26-20	
High-tension steel	General use	EGCHSP 45C,50C,60C	-	-	-	45-60	29-17
	Processing	EGCHSP 35R,40R,45R	-	-	-	35-45	39-27
	Trepanning	EGCHSP 38E,38E	-	-	-	35-40	37-31

## • Product Features

Workability	– Compared with GI and GA, this has less coating weight and has no heat influence during manufacturing process. In this light, it maintains the material characteristics and workability of cold rolled sheet which is the base material
Printability	– Smooth and even surface guarantees good paintability. In addition, phosphate treatment improves paint adhesiveness and corrosion resistance.
Corrosion	– Sacrificial anod reaction of Zn's galvanic action protects the base metal ( $Zn \rightarrow Zn^{2+} + 2e^{-}$ , $2H^{+} + 2e^{-} \rightarrow H_2$ ). A thin carbonic acid zinc film is formed on the surface which acts as a buffer to corrosion when exposed to air
Weldability	– Pure Zn galvanized sheet has a wide contact area when pressure is applied and electricity conductivity is lower than cold rolled sheets thus weldability is inferior to others. However, good spot welding and seam welding are possible with appropriate welding conditions and post –treatment processes

## Product Use

Division	Products
Home appliances	LCD, PDP, PC Case, air conditioner, microwave, washer, refrigerator, gas stove, gimchi refrigerator, VCR, DVD, DVR, satellite transmitter (set-top box), motor, vending machine, water purifier, boiler, air purifier, range hood, hot-air blower, show case, home entertainment, power case, sound system, automatic teller machine
Building material	Fence, soundproof wall, fire door, office furniture, partition
Automobile	Filter, system, car DECK, speaker, various brackets
Etc	Fabricated metal, PCM, PCM material