
MgCOT

MgCOT®

CHARACTERISTICS AND USAGE

- MgCOT is advanced coated product featuring a zinc, aluminum, magnesium alloy coated steel. MgCOT provides super improved durability, chemical resistance excellent corrosion resistance at deformed zone when compared to existing GI. It is future oriented and environmentally friendly.

1 High Corrosion Resistance

This product is 4~9 times superior in corrosion rate compare to same coating mass GI. also equivalent or better in corrosion rate compare to same coating mass Galvalume.

2 Excellent Deformed zone Corrosion Resistance

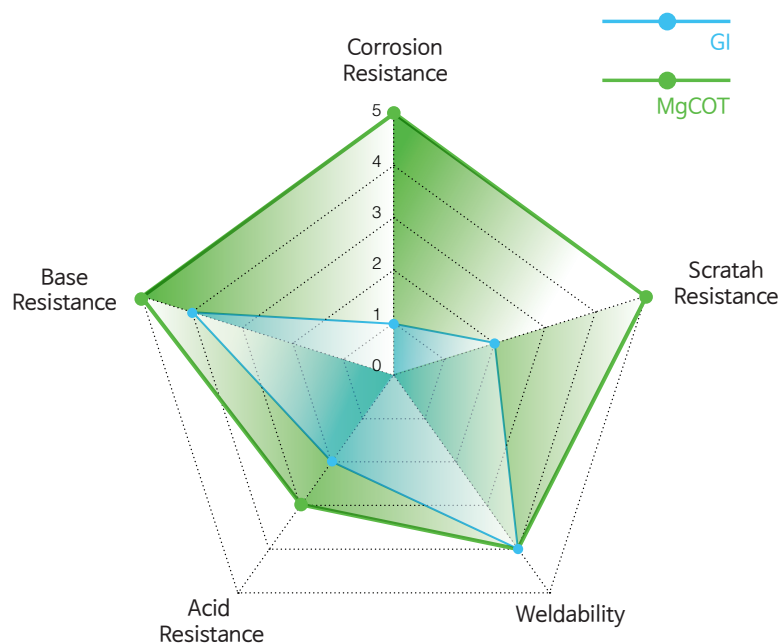
This product is over 10 time superior than GI in deformed zone corrosion resistance.

3 High Chemical Resistance

This product is superior in chemical resistance under acidic and alkaline environment compare to GI. It can be applied to building stock farm or other construction usage

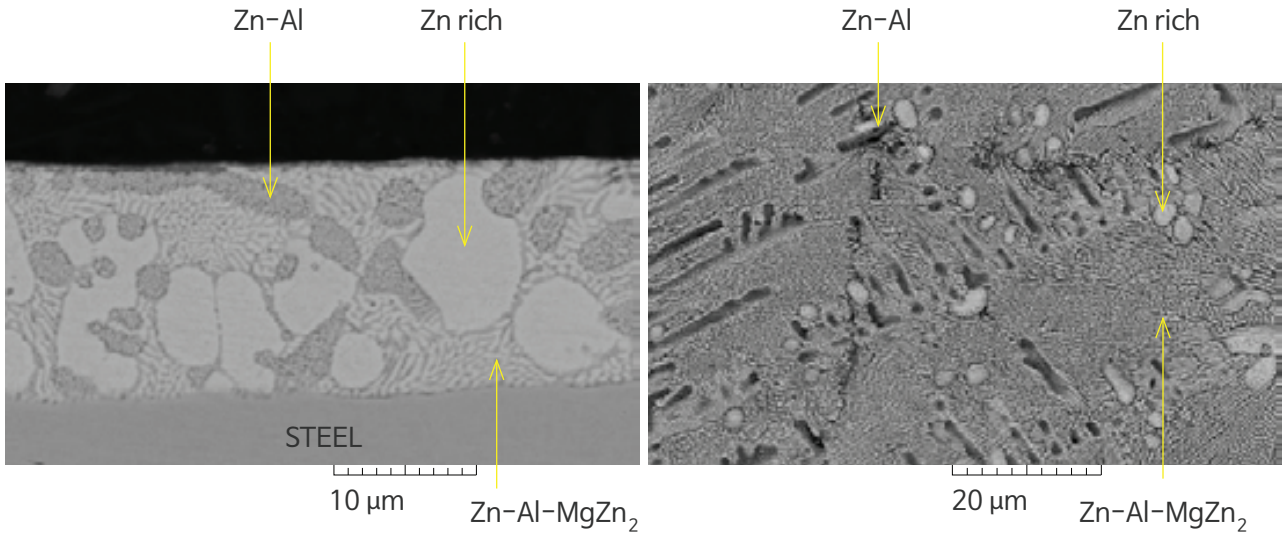
4 Excellent Paintability

This product can be painted same as GI with high excellent paint adhesion and has better corrosion rate the GI after painted.



COATING LAYER

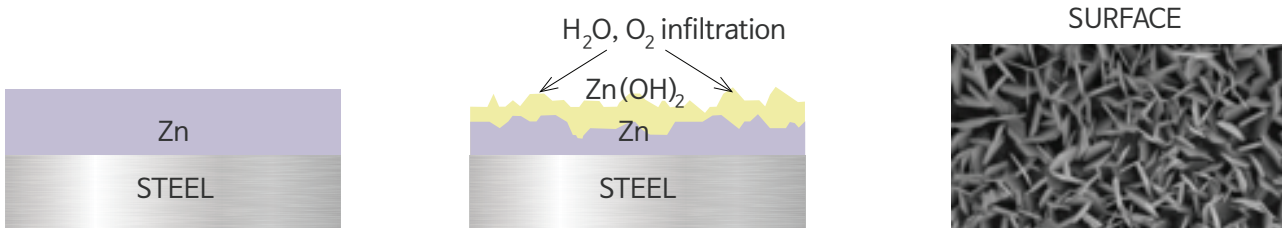
- The coating layer is composed of Zn rich, Zn-Al, Zn-Al-MgZn, these three materials promote the formation of dense corrosion products, providing highly corrosion resistance.



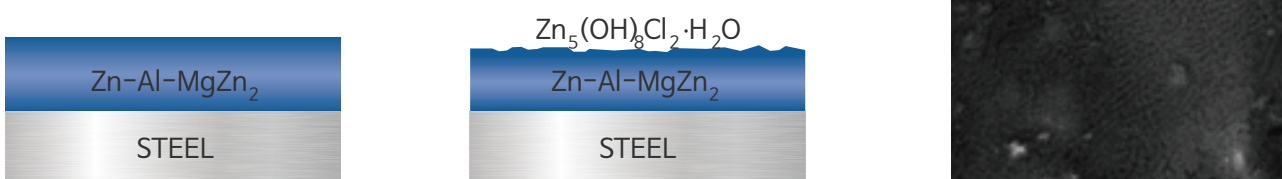
ANTI CORROSION MECHANISM

- GI makes corrosion products $[Zn(OH)_2]$, which are large and porous, on the surface of the coating layer, whereas MgCOT containing AL and Mg to create small, dense particles produces stable corrosion product $[Simonkollite, Zn_5(OH)_8Cl_2 \cdot H_2O]$ This corrosion product creates protective film to prevent penetration of water or oxygen, providing long term corrosion resistance of steel sheets.

GI

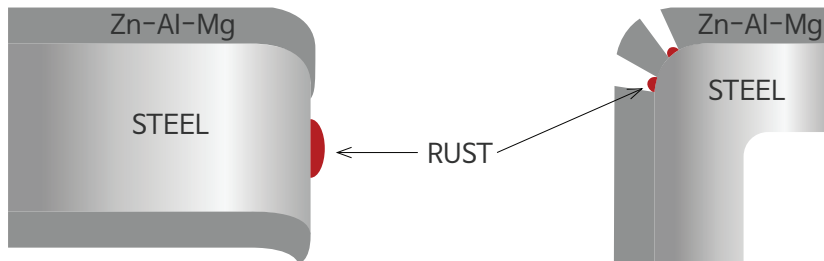


MgCOT



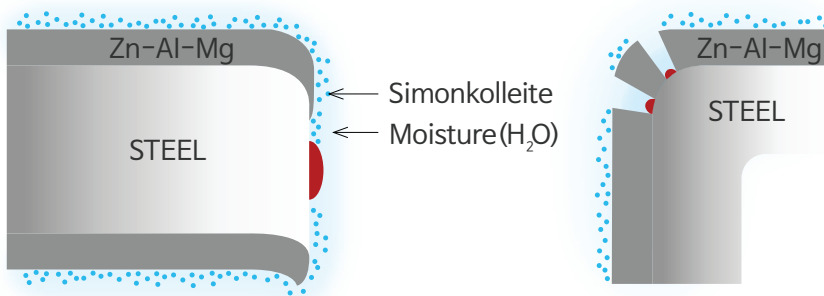
ANTI CORROSION MECHANISM OF SHEARING SURFACE

INITIAL STAGE (SEVERAL WEEKS)



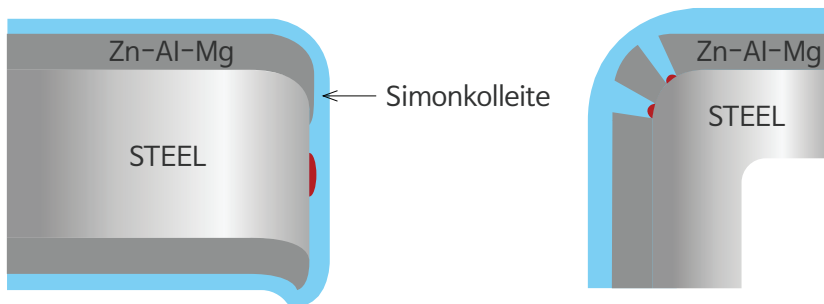
About one-third of the shear section is covered with coating materials pushed by the shear. Red rust can occur in areas where coating material is not covered (cut end, deformed zone) at the beginning of exposure by moisture and oxygen contact.

MID STAGE (SEVERAL WEEKS TO MONTHS)



Zn-Al-Mg coating material released from the surface by moisture, etc. cover the shear surface, producing corrosion products called Simonkollite.

LONG TERM STAGE (MORE THAN A YEAR)



Simonkollite covering the shear surface include AL and Mg, making a stable protective film due to the small and dense particles. This Protective film covers the initial red rust, preventing further corrosion occurring.

HANDLING DESCRIPTION

1 During transportation

- At the process of transportation, pls. attach the rubber pad on the skid to avoid the block ing problem. And pls, cover the coil to protect from rain or snow that might cause from white rust.

2 Storage & handling

- The coil must be kept in the warehouse pls. Handle it with care. And pls, do not pile up more than two stories.

3 Using

- If some part of surface is contaminated, pls. wash it away with a solvent. And if any peel-off, you should follow the instruction that we would give.

4 Long term storage

- This should be used (roll formed or fabricated) within 6 months from shipping date. It may take place the zinc peel-off because of aging effect.

5 Application use

- All forming, cutting, transportation storage, and installation of the roofing sheets or panels should be carried out in accordance with good standards of practice, and in particular any storage of the product at a building site should not exceed one month, during which time the product should be kept dry and away from sources of wet or moisture.
- Forming, fabricating and all processing should be carried out in such a way that does not cause cracks or scratches in the coatings.

6 Beware moisture

- They should be protected from moisture which can cause white rust or rust.