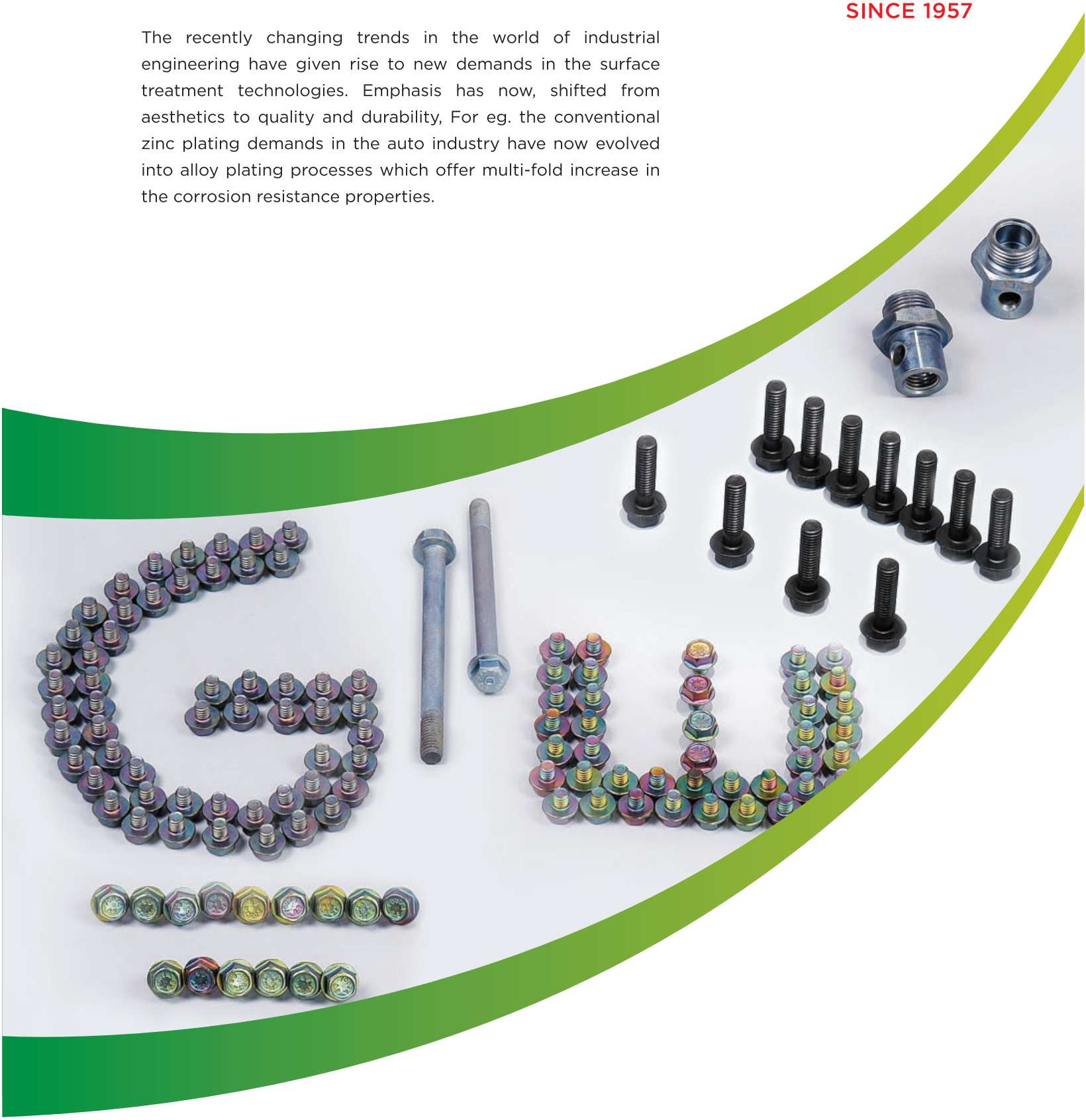
ZINC ALLOYS

GROWEL
SINCE 1957

The recently changing trends in the world of industrial engineering have given rise to new demands in the surface treatment technologies. Emphasis has now, shifted from aesthetics to quality and durability, For eg. the conventional zinc plating demands in the auto industry have now evolved into alloy plating processes which offer multi-fold increase in the corrosion resistance properties.



TRUST THE LEADER IN SURFACE FINISHING

Zinc Alloys

It has now been well established that zinc alloys, formed with more noble metals incorporated into the zinc matrix provides improved corrosion protection from white and red rust. The alloying metals being used to produce zinc alloys are iron, cobalt, nickel and tin. In all these compositions the deposit maintains an anodic potential to steel, yet remains less active than pure zinc. Effective, suitable chromate conversion coating makes this deposit much more durable than pure zinc in service.

Further to that, application of new generation sealers / special synthetic top-coats, to the base material produce anti abrasive, lubricative and such other mechanical properties up to extremely high levels.

Zincalume COZ

- Acid zinc cobalt with cobalt% : 0.2-1.0%.
- Operates same like acid chloride zinc ~ ease of operation to users.
- Exhibits higher corrosion resistance and deposit hardness.
- Higher resistance towards Kesternich test is special feature for this process.

Zincalume ZCo

- Alkaline zinc cobalt with cobalt % : 0.3-0.8.
- Corrosion resistance ~ better than zinc and acidic zinc cobalt.
- Provides better thickness distribution and firm anchorage towards chromating as compared to acidic zinc cobalt plating process.
- Distribution of alloying element (in this case cobalt) is better than acidic zinc cobalt plating process.
- Provides better Kesternich test resistance as compared to other zinc alloys ~ Zn-Ni, Zn-Fe.

Zincalume FeZ

- Alkaline zinc-iron deposit with 0.3-0.6% iron in the deposit.
- Deposits are free from 'delayed blistering'.
- Offers very good thickness distribution on the plated components.
- Offers excellent neutral salt spray resistance ~ >200 hrs. even after thermal shock ~ 1 hrs. 120ºC.

Zincalume FeZCo

- % of alloying element : Iron + Cobalt ~ 0.3-1%.
- Corrosion resistance ~ better than zinc and also it is found better than zinc-cobalt deposited from both alkaline and acidic electrolytes.
- Provides better thickness distribution and better alloy distribution.
- This alloy is reported to be very successful while using for non-silver based black chromating.
- Provides better Kesternich test resistance as compared to other zinc alloys ~ Zn-Ni, Zn-Fe.

Zincalume NiZ 551 / 651

- Alkaline zinc-nickel process induces 12-18% nickel in the deposit.
- Offers extra-ordinarily high corrosion resistance ~ > 1000 hrs. neutral salt spray resistance, even after thermal shock ~ 1 hr. 120ºC.
- Produces deposit exhibits uniform alloy distribution over a wide current density range.
- Application in both vat and barrel is possible ~ pauses ease of operation.

Zincalume NiZ 851

- Alkaline zinc-nickel plating with low nickel in the deposit – 6-10%.
- Ductility of the deposit is better than other high nickel process ~ hence, offer better corrosion resistance even after crimping.

Zincalume Zni

- Zinc-nickel plating process using acid electrolytes.
- Suitably chosen for plating on 'unplatable' e.g, cast iron parts - Brake calipers etc.
- High rate of deposition.

Zincalume SnZn

- Neutral, Cyanide free tin-zinc alloy plating process to deposit semi-bright, homogeneous, tin-zinc deposit.
- Alloy Composition: Tin - 65-75%, Zinc-35-25%.
- Excellent solderability even after aging.
- Suitable for multipurpose application.

HEADING TOWARDS CORROSION FREE WORLD TO MEET AUTOMOTIVE SPECIFICATIONS

Grauer & Weil (India) Limited
Growel House, Akurli Road, Kandivli (E), Mumbai 400101, India
T 91 22 66993000 **F** 91 22 66993010 **E** hq@growel.com

Chemicals | Engineering | Paints | Lubes | Real Estate

GROWEL
SINCE 1957

GC/ZA/0111/0114/1K