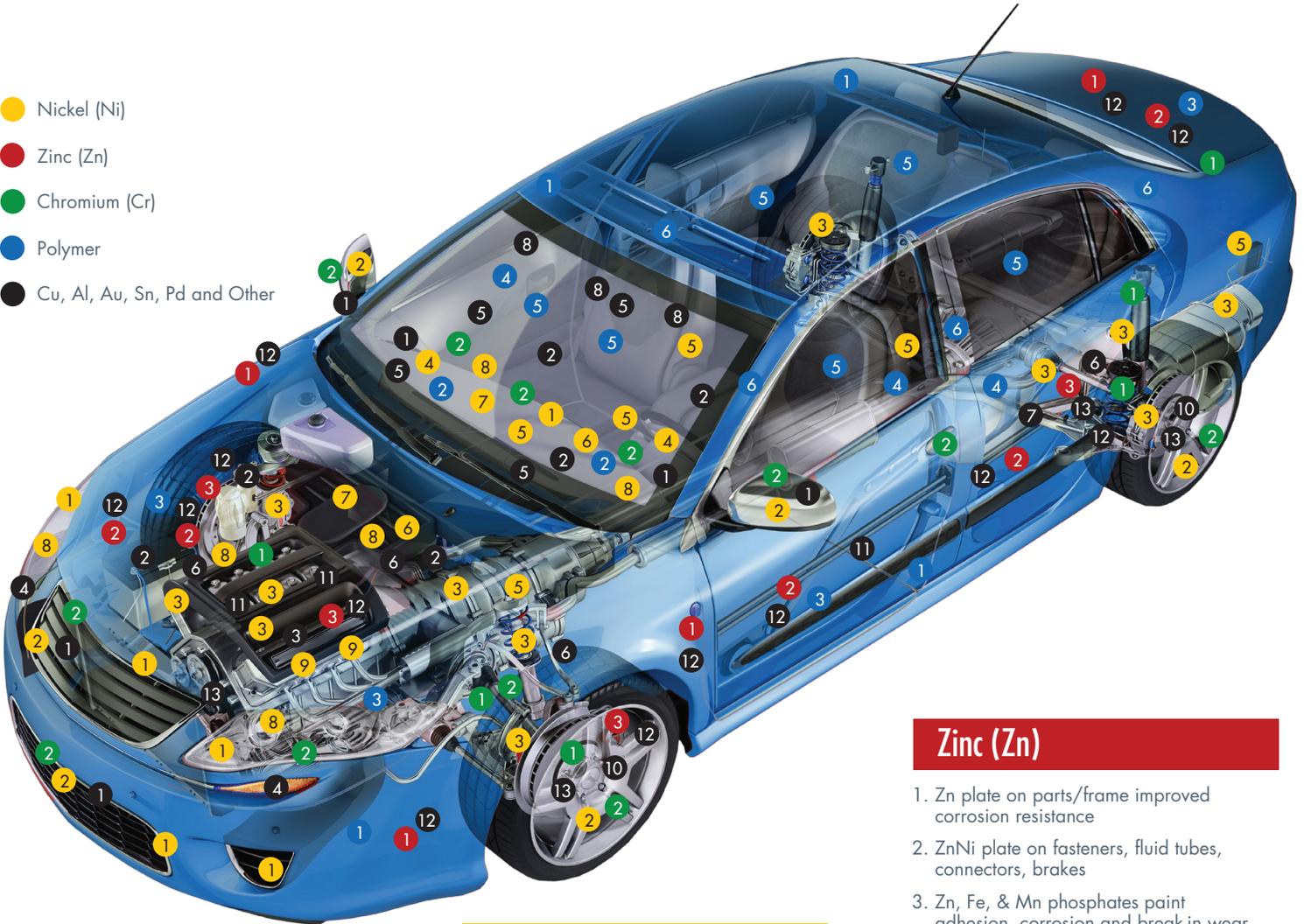


- Nickel (Ni)
- Zinc (Zn)
- Chromium (Cr)
- Polymer
- Cu, Al, Au, Sn, Pd and Other



Polymer

1. External paint system
2. Paints on all dashboard gauges, trim, knobs
3. Aluminum-Zn filled dip-spin fastener coatings
4. Lubricious polymer coatings on window drives
5. Fabric and leather coatings - against fire, stains, bacteria, water, static shock
6. E-coat to prevent car frame corrosion

Nickel (Ni)

1. Electroless Ni for plating on plastic
2. Ni plate under decorative chrome
3. Electroless Ni for wear, corrosion – pistons, suspension, brake systems, fuel lines, gears
4. Ni for decorative trim
5. Ni plated magnesium to reduce weight
6. Electroless Ni to stop radio interference
7. Ni plating for electronic circuits, substrates
8. Electroless Ni/Pd/Au for wire bond, Pb-free soldering
9. Electroless Ni-PTFE for fuel injectors

Chromium (Cr)

1. Hard Cr on valve stems, shocks, brake cylinders, fuel injection nozzles
2. Decorative Cr on interior and exterior trim, wheels, knobs, insignia

Zinc (Zn)

1. Zn plate on parts/frame improved corrosion resistance
2. ZnNi plate on fasteners, fluid tubes, connectors, brakes
3. Zn, Fe, & Mn phosphates paint adhesion, corrosion and break-in wear

Cu, Al, Au, Sn, Pd and Other

1. Copper under decorative coatings, electronics
2. Gold, silver, tin on all electronics
3. Diamond-like carbon on fuel injectors
4. Aluminum on light reflectors
5. Hydrographic coatings for “wood” internal trim
6. Nitrocarburizing for wear components
7. Platinum, palladium, rhodium for catalytic converters to reduce pollution
8. Optical coatings - anti-glare, smart glass
9. Thin aluminum, Cr for car mirrors
10. Powder coating for wheels
11. Anodizing - pistons, rings, seat slides
12. Conversion coatings on Zn, ZnNi, steel
13. Tin alloy coatings for bearings

**The National Association
for Surface Finishing**
1800 M Street Suite 400 S
Washington D.C. 20036

P: (202) 457-8404
F: (202) 530-0659

NASF.org