## Calcium
Calcium is an auxiliary drier. It is used both in combination with lead and as a partial replacement for lead in vehicles that show poor tolerance for lead. Calcium prevents formation of basic lead phthalates in alkyds systems. When used along with zirconium in lead free systems, calcium driers find important application as pigment wetting agents and reduce loss of dry problems.

## Zinc
Zinc has been found to give harder films in many coatings films and baking enamels keeping the film 'open' and preventing surface wrinkling agent and reduce loss of dry when incorporated early in the grind phase of manufacture.

## Lead
Lead functions as a powerful drier by promotion polymerization of drying oils, causing the film to dry in its entire thickness.; in other words the drying of the surface and inside the film is catalyzed uniformly. Lead is, therefore called a "through" drier like cobalt is known as the top drier. Lead also improves the flexibility, toughness, durability, water resistance and salt spray resistance of the film. Lead is always used in conjunction with others such as cobalt and calcium. It is also used as a deleafing additive for aluminum pastes. However, lead is seldom used these days due to environmental hazards.

## Iron
Iron is a specialty drier which is active only at bake temperatures above 120º C although it effects little or no polymerization at ambient temperatures. Iron can be used only in darkly pigmented coatings as it contributes a brownish red color. Iron is a good wetting agent for carbon black pigments, thus yielding better grinds. It also helps to avoid loss of dry problems. Iron has also been reported to reduce the

## Cerium
Cerium promotes polymerization and through drying, cerium, more active at higher temperatures, does not stain the film although it imparts less hardness than iron. Cerium is a preferred drier in long oil alkyd vehicles and alkyd/epoxy systems. Cerium also performs as an effective auxiliary drier in coatings dried at low temperature and high humidity. Cerium is particularly recommended for baking finishes for white or overprint varnishes where color retention is important.

## Lithium
Lithium is generally used in conjunction with cobalt in high solids coatings as a substitute for lead. These resins are necessarily of low molecular weight, so designed to comply with VOC regulations. Lithium promotes through drying with improved hardness reducing the tendency of high solids coatings to wrinkle. It is also used as an etherification catalyst for alkyds -particularly with coconut oil alkyds.

## Other metals
DURA also offers metals carboxylates of barium, copper, rare earth and many others in addition to the principal drier metals previously described.

tendency for orange peeling in black automotive bake finishing.