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Modern Paint Lines Yield Higher Quality at Less Cost

The word "paint" is used to define a surface coating applied to produce lines or colors to protect or beautify an item. "Painted woman" expresses a cosmetic impression made to beautify. "Painted horse" refers to a multicolored composition that can be used to identify one from many others in the field. "Chip and paint" is the age-old Navy phrase for removing old paint, preparing and re-painting a surface, which is an endless job.

In general, paint and organic coating are essentially the same, even though they differ in classification or identification of use. All coatings are made by dispersing some of pigment into a resin—liquid or powder—that converts into a hard film by evaporation of solvent, water or melting into oxidation or polymerization.

The diversities in paint, organic and inorganic coatings provide finished products with a variety of properties, such as color, hardness, gloss, durability, corrosion resistance, impact and scratch resistance, heat/ cold resistance, chemical resistance, elasticity and more.

Classification

Identification should and must be considered to better understand:

- Paints—Usually classified as drying oils, varnishes, latex, alkyd enamels and lacquers. Generally used for cosmetic or decorative purposes with some degree of resistance properties. Features include ease of application; excellent wetting properties; weathering properties that are fair to good (depending on exposure); good adhesion and low cost.
- Organics—Coatings that are usually classified as the phenolics, epoxies,

polyurethanes, melamines, polyvinyls, polyesters, etc. Generally selected because their properties provide special resistance to conditions that other coatings lack. Each coating, however, may have characteristics that are favorable or unfavorable to certain conditions.

• Inorganics—Coatings such as glass linings, porcelain enamels, metalized coatings, silicated coatings, etc.

Chemists in the paint finishing industry have developed technology through the years that has expanded the capabilities and uses of this process. Production personnel and engineers are constantly improving application techniques and planning for the future. Placing emphasis on quality, economy and simplicity has allowed many shops to improve the quality and quantity of production.

Necessity is Still

The Mother of Invention Occasionally, requirements for specifications and performance from a customer can tax the ingenuity of a shop to the extent that a compromise has to be made in the production process. This usually leads to controversies, then to innovations that continue to produce progress.

It is good to remind ourselves that some of the most productive time we can spend is "thinking," and inspiring others to be more inquisitive. Ask yourself these questions:

- Are your finishing operations performing at the highest quality and as economically as possible?
- Is your marketing program as effective as it can be?
- How long has it been since you reviewed procedures and compli-

ance programs, and are they based on the most recent technology?

- How much has your product changed?
- Is your operation as competitive as it can be?
- Does your operation need to be upgraded to improve production and quality, and reduce costs?
- Is your operation continuing to reduce pollution, improve air and water quality, or work toward zero discharge?

I have seen many cases where great efforts were made to produce a quality product, reduce cost and improve profits, with the intention of putting the best finish possible on the product. Because all of the money was spent on new equipment for making the product, however, the surface finish is applied with an outdated process. This often results in a need for reworking parts, creating complaints about the finishing department being unable to keep up with production schedules and quality goals.

Different soils often come with parts from a new manufacturing process. This requires re-evaluation and modification of cleaners and cleaning processes to remove the soils for preparing the part to be finished.

It has been documented many times that remodeling the finishing line is one of the quickest pay-backs (usually 12-24 months), compared to other facility improvements. It is a worthwhile effort to examine all of the opportunities available for improving our operations, increasing profits, and ensuring that our companies can continue to compete in the future. **PASF**