

Engineer's Guide to Paint Masking Details

There are three important questions to be answered in the application of liquid coatings (including Decorative Coatings and textures, ESD Coatings, and EMI/RFI coatings):

1. Where is the paint **required**?
2. Where is the paint **NOT** allowed?
3. What is the tolerance **between** the two areas noted above?

These answers are critical in designing production masking for success. Central Coating has multiple options, and years of experience, to help guide you to a positive outcome with your product. These few details will help in your decision-making process:

- A. Masking **exactly** to an inside or outside corner is difficult; allow for a margin of .015" - .060" depending on geometry;
- B. Through holes can be plugged, blown through, or masked with a margin. A mask around through holes should allow for .030" - .060" larger than the hole diameter;
- C. Bosses generally are capped, .030" - .060" down from the top surface, alternatively or selectively we can mask threads and coat the top of the boss;
- D. Narrow flanges, perimeters or ribs should be at least .050" wide, and not subject to bowing or flexing; we typically require half of the detail thickness for effective masking; min. .030";
- E. In general, flexible, thin wall parts with delicate features should be reviewed with our engineers for feasibility;
- F. Deep, narrow spaces are difficult to fully coat.

Each part is unique, and may require a combination of solutions. Whether simple masking tape, die cut adhesives, standard and/or custom RTV plugs, plastic caps, or rugged electroformed hard tools, we likely have an effective solution.

We welcome involvement as early in the design process as possible, but can respond effectively at any point in your product design cycle.