

POWDER COATING BEST PRACTICES CHECKLIST

Thanks for choosing to work with Forrest Technical Coatings as your powder coating supplier. We recommend you use this checklist for successful powder coating.

For a coating to adhere and perform to its full potential the substrate must be prepared and the applicator must use correct techniques.

For videos with more explanation, visit our website here:

<https://resources.forrestpaint.com/powder-coating-best-practices>

For more training in powder coating application, we also recommend:

- Powder Coating Institute (<https://www.powdercoating.org/>): an industry non-profit offering basic and advanced training.
- Chemical Coaters Association International: The Finishing Industry's Education & Networking Resource with a powder coating video series.
<https://www.ccaiweb.com/page/finishing-tips>

VIDEO LINK: RESOURCES AVAILABLE TO APPLICATORS (https://youtu.be/4i6qb0_OxX0)

Best Practices Check List

1. ARE THE POWDER COATINGS PROPERLY STORED?

- Protect powder from high-temperature, humidity and contamination during storage.
- Store powder in zip-tied plastic bags in the original boxes with tops closed.
- Avoid high-temperature or high-humidity storage to prevent clumping.

VIDEO LINK: <https://youtu.be/UmEkYaXmF-4>

2. IS THE POWDER BOOTH CLEAN?

- Clean booth surfaces and check for residual powder before and after powder coating.
- Ensure dry and oil-free compressed air for cleaning.
- Maintain ventilation during cleaning to remove excess powder.

VIDEO LINK: https://youtu.be/SxjJ_M4eJE0

3. IS THE EQUIPMENT CLEAN AND READY FOR USE?

- Regularly clean powder coating equipment, especially the gun.

- We recommend cleaning at every color change.
- Use compressed air for a quick cleaning and disassemble for thorough cleaning.
- Follow the manufacturer's recommendations for proper cleaning procedures.

VIDEO LINK: <https://youtu.be/kfNg5JSjAP0>

4. WORKER SAFETY: ARE YOU PROTECTING YOURSELF?

- Understand OSHA rules in your region.
- Wear safety glasses, earplugs, and durable clothing.
- Use grounding gloves to avoid shock.
- Do not use compressed air to blow powder off clothes or skin.
- Be aware of powder toxicity for enhanced safety. Refer to TDS and SDS.

VIDEO LINK: https://youtu.be/G_N215NnYVM

5. IS THE PART CLEAN?

- Clean all parts thoroughly to remove manufacturing residues, seen and unseen.
- Invisible contaminants like mill oils, machining oils, and rust preventatives are likely present.
- Utilize wash, pre-treatment products, and manual sandblasting. Clean parts prior to sandblasting to prevent contamination.
- Verify cleanliness of your part with solvent wipes.

VIDEO LINK: <https://youtu.be/r278vPIJgU4>

6. IS THE PART WELL GROUNDED?

- Properly ground parts using hooks for effective powder coating.
- Ensure metal-to-metal connection for a good ground.
- Use grounding gloves for personal grounding and protection against shock.

VIDEO LINK: <https://youtu.be/x0goPs04cQ4>

7. IS THE GUN SET TO CURRENT CONDITIONS AND PART SHAPE?

- Consider airflow, powder volume, and electrical settings simultaneously.
- Use a flat tip for coating Faraday areas.
- Consider a conical tip for wrapping around round or irregular parts.

VIDEO LINK: <https://youtu.be/3US7yw2i1j4>

8. HOW WILL THIS PART BE CURED?

- Understand and interpret cure time/temperature parameters.
- Start timing when substrate is up to temperature.
- Use temperature meters for accurate temperature measurement.
- Perform cure tests such as solvent rub and crosshatch adhesion to ensure proper curing.

No Video Link