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Application Instructions for the Polyphen™ Products

Polyphen products use a thermosetting resin that gives outstanding corrosion resistance and many other properties that are useful. These can be applied to most metals and other substrates that can withstand the cure temperatures. These instructions apply to the following products:

| | | | | | |
|--------------------------|--------|----------------------|---------|--------------------------------|------|
| Thermal Dispersant | TLTD | Dry Film Lubricant | TLML | Thin Film Thermal Barrier | TLLB |
| Hot Stop Thermal Barrier | TLHB | Solid Film Lubricant | TLMB | Wear Resistant Thermal Barrier | TLHC |
| Gold Piston Coating | TL-PTG | Release Coating | FLO-923 | Polyphen | PPVD |

Development of other coatings using this same resin system is ongoing and these instructions will apply to them as well.

The following are general instructions to help you achieve the best results using these products.

Surface preparation:

- The parts to be coated must be clean and free of all oils, grease, moisture, dust, scale or corrosion.
 - If the part has oils, grease or other contaminants it must be cleaned to allow the coating to adhere to the substrate. This can be done by pre-baking the part. Solvents can be used if they will completely evaporate without any residue. The part should be free of oils before sand blasting.
- Sand blast with 100 to 120 grit aluminum oxide or similar.
 - After sand blasting clean any residue off with high pressure air. Protect yourself with safety shield, goggles and respirator.
 - If needed a rinse with acetone or lacquer thinner can be done to further clean the part.

Preparation of the coating:

- Shake and stir the coating before use. A number of clean ball bearings or clean small nuts may be added to the coating to help agitate the coating while you shake the container.

Equipment:

- Use an airbrush or detail touch-up spray gun with a 1 mm or smaller tip, to apply the coating.
- Use a respirator with the correct NIOSH filter (consult the MSDS before using). Wear safety glasses or goggles. Wear gloves to protect your hands from the coating and from solvents

Spraying the coating:

- Spray the coating in all hard to reach areas first then move out to the other areas. Your finished cured coating thickness should be about .0005" to .0015" depending on the coating.
- Inspect part for complete coverage. Part should be glossy wet without runs or sags.

Multiple Coats:

- These coatings may be applied as multiple coats with a flash off bake of 200° for 10 min. then allow to cool before applying the next coat. When the last coat is applied and after it has dried the final cure would be done for all the layers of coating.
- The additional coats do not need to be the same coating. For example TLMB can be used to build up a surface and then TLML can be used to add an additional layer of lubrication, other combinations can be done as well to achieve other results. Contact our Customer Service Department for advise on other combinations.

Curing the Coating:

- Allow coating to dry to the touch.
- The coating may be cured in an industrial oven not used for food. The temperature to cure is 300° for 1 hour.


Additional Notes:

Clean up of the Polyphen products is done with a solvent like acetone or denatured alcohol.

Do not try to make the coating too thick for each coat. This can lead to solvent entrapment and a damaged surface finish after cure.

Avoid Vapors
Avoid Contact with Skin or Eyes
Harmful if Swallowed
Contains Petroleum Distillates
If swallowed DO NOT Induce Vomiting
Call a Physician Immediately
Keep out of reach of children
Keep away from fire or flame

Hazard Information
Danger



Flammable
Liquid and
Vapor