Alesta® AG
Anti-gassing Additive

Alesta® AG Additive XX1003 is an additive designed to minimize the formation of bubbles in the coating surface caused by gas or moisture released from porous substrate during cure.

Product Information

- Specific Gravity: 0.95
- Appearance: White powder
- 325 mesh retention <0.01%
- Requires only a minimal amount of AG additive to minimize or eliminate the formation of bubbles or pinholes in the coating surface
- Compatible with most Alesta® powder coatings
- Eliminates the need for custom-formulated anti-gassing powders
- Reduces inventory carrying costs (no need for multiple SKUs)
- Conveniently packaged in 25 lb. boxes, also we can repackage in 5 lb., 10 lb. boxes similar to samples.

Directions for purpose:

- Use proper personal protection equipment and consult the SDS prior to use
- Make sure all equipment is clean and in good working condition
- Add Alesta® powder coating to a clean fluidized hopper (no box feeders) and start fluidizing powder. Refer to Mix Ratio Table for proper ratios of AG Additive.
- The severity of the substrate's porosity will determine the amount of AG Additive needed,however, adding more than the recommended quantity of AG Additive may result in excessive loss of gloss.*Testing the product prior to application is recommended.
- Thoroughly mix the AG Additive with the Alesta® powder prior to application

Typical types of porous substrates:

- Die-cast aluminum
- Magnesium
- Other die-cast parts
- Galvanized metals
- Porous substrates

Important notes:

- AG Additive may reduce gloss by approximately 10 units based on a 60° gloss meter. It is recommended not to exceed adding more than 4% of the AG Additive.
- At elevated cure temperatures, a waxy film may occur on the surface. It can easily be removed by buffing with a clean, soft cloth.
- AG Additive may interfere with adhesion of silk-screening inks, labels and may cause an unusual appearance in metallic-effect powder coatings. *Testing the product prior to application is recommended.
- A minimum of 6 months when stored at 75 F and 50% relative humidity.
- For additional physical information see Section 9 of the Safety Data Sheet (SDS)

Mix ratios:

Powder Quantity	2% AG Additive XX1003	4% AG Additive XX1003
25 pounds	½ lb., 227 g, or 8 ounces	1 lb., 454 g, or 16 ounces
55 pounds	1 lb., 500g, or 18 ounces	2 lbs., 1,000 g, or 35 ounces
110 pounds	2 lbs., 1,000 g, or 35 ounces	4.4 lbs., 2,000 g, or 70 ounces

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Troubleshooting guide for out-gassing problems

METHOD	ADVANTAGES	DISADVANTAGES
Purchase higher quality castings • Mold casting (best) • Die casting (good) • Sand casting (worst)	• Good long term solution • Highly effective • Consistent	• May increase cost (could be off-set by savings in rejects, lost production, etc.) • Poor short term solution - requires time to investigate and specify
Change alloy composition	If an effective alloy is found, then: • Good long term solution Highly effective • Consistent	• May increase cost (could be off-set by savings in rejects, lost production, etc.) • Poor short term solution - requires time to investigate and specify
Pre-bake parts to de-gas before coating	• Good short term solution for small quantities or batch processes	• Can burn soils into the casting • Results may be inconsistent • Some castings may require very high temperatures and/or long treatment time • May affect temper of some alloys • Generally too time consuming for long term use or mass production
Use anti-gassing powder	• Good long term solution • Relatively inexpensive	• Poor short term solution if a new product must be designed - R&D and production usually require time • May not totally eliminate problem
Use I.R. cure to prevent part heat-up	• Good long term solution • Relatively inexpensive	• May be expensive to purchase and install equipment, but cost could be offset by savings in rejects, lost production, etc. • Poor short-term solution - requires time to investigate, purchase equipment and install
Grit blast parts to open pores near surface of casting	• If this works, then this is a good short term solution for small quantities or batch processes • Improves adhesion, corrosion performance and physical properties of the powder coating	• Can introduce soils into the casting • Results may be inconsistent • May make out-gassing worse in some cases • Cannot be used in light gage metal • Labor and time intensive - not easily adapted for mass production
Re-cast parts	• May be an effective short term solution	• Increased cost and time • Poor long term solution
Coat parts hot	• Can be a good short term solution • If production line is set up for it, can be a good long term solution • Has added advantage of improved adhesion and coating appearance • Thicker films may improve corrosion resistance	• Time and labor intensive if shop is not set-up for pre-heating • Film control may be difficult • Thicker films will increase powder usage and reduce impact and chip resistance • Any out-gassing may be exaggerated due to large bubble formation in thicker films • Good timing required to prevent parts from cooling before coating
Apply two coats of powder	• Can be an effective short term or long term solution	• Doubles time and costs • May not be totally effective • Thicker films will increase powder usage and reduce impact and chip resistance • If part is double coated cold, can have inner-coat adhesion problems and electrostatic application problems

Contact Axalta Coating Systems- Powder NA Customer Service for more information or to place an order.

In the U.S., call 1-800-247-3886 or e-mail weborders.powder@axaltacs.com.

In Canada, call 1-888-447-2598 or e-mail powder.info@axaltacs.com

www.axalta.us/powder

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