



How-To:

Freeman Flakes Injection Waxes: Spotting Counterfeits

Freeman Flakes Injection Waxes are prone to counterfeits. Here are some tips to make sure you are purchasing genuine Freeman Flakes every time.

- **Pricing:** Is the wax much cheaper than is typical for your market? This can be a red flag.
- **Foul Odor:** Counterfeit waxes are loaded with resins and possess a strong chemical odor. This odor is present when the bag is opened. The odor becomes stronger when the counterfeit wax is melted.
- **Ash Content:** Due to the excessive resin content, the ash content of these counterfeit waxes is astronomical, at .075%. This results in poor surface quality in castings. Genuine Freeman Flakes display an ash content of .003 to .009%.
- **Batch Numbers:** Freeman began using the new bags in 2015. Batch numbers beginning with a 3 or 4 are from 2013 and 2014, respectively. The bags below display 2013 batch numbers with the 2015 bag design.



- **Bag Seals:** Counterfeit wax (left) have a thicker, heavier textured waffle pattern on the seal. Genuine Freeman Flake bags (right) have a narrower, lightly textured seal.





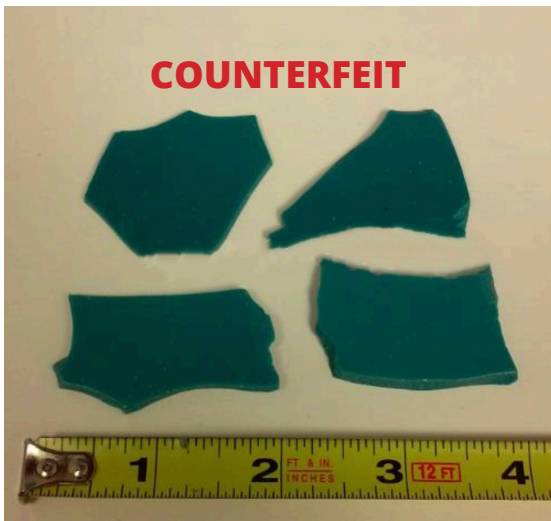
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- **Flake Thickness:** Are the Flakes a consistent thickness? Freeman's Flakes are a uniform thickness. Counterfeit wax flakes vary in thickness within each bag.



- **Overall Flake Size:** Are there unusually large flakes in the bag? This may be a red flag. Genuine Freeman Flakes are typically 1-1/2" or smaller.



- **Brittle Wax:** Filigree designs and prongs break upon demolding due to wax being brittle and weak in thin sections.
- **Short Shelf Life:** Patterns become brittle and unmanageable as soon as 3 days after injecting.
- **Poor Fills:** Filigree molds fill poorly, displaying lumpy, irregular prongs.

