



Starch filler in latex foam - Gloves' degradation

Due to tough competition, many manufacturers are using a high percentage of filler (Talc/China/Clay) in latex foam. Some are using starch (Maize). Is there a simple procedure to check the percentage of filler and starch in the product?

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For the total quantity of filler, a weighed sample of the product can be burned in a muffle furnace to an ash. The weight of the ash divided by the original weight determines the per cent of filler.

To identify the filler, atomic absorption analysis will identify talc or clay.

Starch filler is unsatisfactory in latex foam. It is water sensitive and is prone to attack by micro organisms. These drawbacks can be offset by chemical bactericides and other additives. However, considering the use conditions of latex foam, I would not recommend corn starch as a filler.

I know of no easy method of determining the amount of starch filler in latex foam.

Our company produces thin walled latex examination gloves for export. We are subscribers of *Rubber*

Asia and follow the advice in your articles wherever it is required in our process. We are experiencing a few difficulties where urgent corrective action is required.

What causes degradation of gloves (a kind of fungus attack on certain areas with a resultant weakening of the film, leading eventually to a tear on the film), though there were no signs of degradation when a glove was removed from a former? This appears 2-15 days during storage (packed in the required way; in boxes). Only a few gloves are affected at a time (negligible compared to the production in that shift), and that too, in different areas. The textured glove (texture in palm and fingers) is more vulnerable to this attack than the smooth glove. After chlorinating these gloves, the problem is seen more, since the film tends to crack open. This is especially true in the cuff area (thickness 11-44 mm). After chlorinating a glove, the dry powder content on it is nil. The oven temperatures in the plant are 80 - 150°C (drying) and 112 - 120°C (curing).

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This is an instance where I

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