



HOW TO TEST YOUR DESICCANT

EQUIPMENT REQUIRED:

- Two (2) containers of approximately 10 oz. each
- One (1) thermometer with max temp up to 200 °F
- One (1) pair of temperature resistant gloves
- One (1) full face shield

Caution: Direct water contact onto active desiccant causes high temperature and steam. Proper attire is required to conduct this experiment safely.

Desiccant is the most critical component of your material drying system. Desiccant that is old, degraded, or can not be regenerated will render your drying system unfit for production. This will lead to parts that show signs of: splay, silver streaking, and degradation. However, checking desiccant can be an easy process that can be completed in just a few minutes. The test should be conducted quarterly or whenever failure signs of moisture appear. The experiment consists of rapidly saturating a desiccant sample with water, and measuring resulting increase in temperature.

Obtain a desiccant sample from the bed that has already been regenerated. It is important to make sure that the desiccant has cooled from the regeneration cycle. Never test desiccant that is higher than room temperature. This will cause excessively high temperatures that could damage the container in which you are testing.

Before testing, observe the condition of the desiccant. If it looks discolored to a very dark brown or has chips and is turning to dust, these are visual signs of desiccant age. Visual inspection can also be a good indicator for when desiccant is required to be changed.

While wearing your safety equipment, place about two (2) ounces of desiccant into the first container. Place the thermometer into the container and record the ambient temperature reading. Quickly add two (2) ounces of water. Stir using the thermometer or other long-handled device and record the peak temperature obtained. Peak temperature should be reached in less than 30 seconds.

Subtracting the ambient temperature from the peak will give you the temperature increase resulting from the experiment. If the increase is greater than 50°F, your desiccant is in fine working order and requires no further attention. If the results are less than 50°F, check your dryer to make sure the regeneration cycle is functioning properly, or your desiccant needs replaced.

Periodic quarterly checking of desiccant performance is optimal. Another surefire method of achieving similar results is by putting desiccant replacement into your dryer PM logs. Most manufacturers suggest that desiccant be replaced once per year. It is most effective to replace desiccant during the time of year prior to the highest humidity months in your geographic area. This will assure that you have the best desiccant during the highest humidity times and taper in performance with the decline in humidity.

For more information, or to order new desiccant, call Services for Plastics at 800-627-1033.

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