

WETSYS : A New Tool to Explore the Effect of a Humid Atmosphere on a Sample

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Humidity is known to considerably affect the stability of many products such as pyrotechnical materials, polymers, pharmaceutical products, foodstuffs, plasters, cements, metals and alloys, etc.

Take the example of an active pharmaceutical ingredient containing an amorphous phase. When the relative humidity increases, the vitreous transition temperature of the pharmaceutical product and the crystallization temperature of the amorphous phase decrease, completely changing the product's properties.

To evaluate the influence of humidity on the long-term stability of these products, it is necessary to specifically study their behaviour under relative humidity. Thus SETARAM has developed a new accessory called WETSYS designed to offer you the following possibilities:

- ✓ Generation of precise and controlled humidity in the range of 5-90% RH (Ambient up to 75°C)
- ✓ High accuracy and stability.
- ✓ Use with SETARAM thermal analyzers and calorimeters, as well as with other analysis instruments,
- ✓ Ease of use, automation and autonomy,

Based on the description of the principle and there characteristics parameters we will present some applications on influence of humid atmosphere on hydratisation and adsorption processes.