

IGASORP DELIVERS FOR PHARMA

HIDEN
ISOHEMA

Why DVS is Essential for Pharmaceuticals

Dynamic Vapor Sorption (DVS) gives pharmaceutical teams the competitive edge by revealing how materials interact to predict stability and compatibility. With unmatched sensitivity and precise environmental control, the IGAsorp helps to accelerate formulation success.



Critical Use Cases

- **Isotherms:** Hygroscopicity & moisture uptake
- **Amorphous content determination** (as low as 0.5% w/w)
- **Hydration and solvation studies**
- **Phase transitions** (polymorphism, glass transitions)
- **API - excipient interactions**
- **Stability and packaging simulation**
- Pharmaceutical drying applications

IGAsorp: Rethink DVS. Unlock Better Outcomes.



Key IGAsorp Features

UNMATCHED SENSITIVITY

- Ultra-low amorphous content detection
- Sensitivity to 0.05 μg

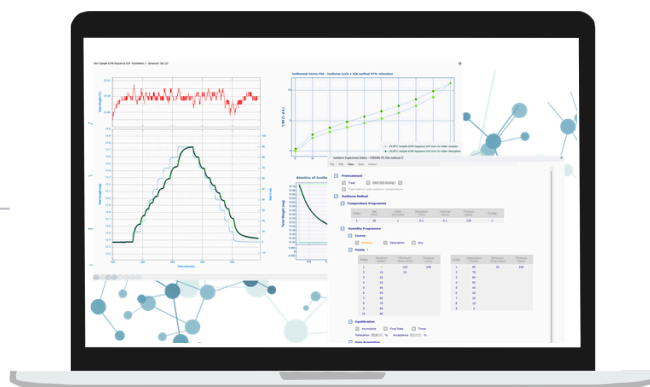
PRECISE ENVIRONMENTAL CONTROL

- ICH Stability Testing Ready
- 5 to 85 °C with 0.01 °C stability
- 0 - 98 %RH with 0.01 % RH stability
- Broad sorbate compatibility for solid state analysis

COMPLIANCE

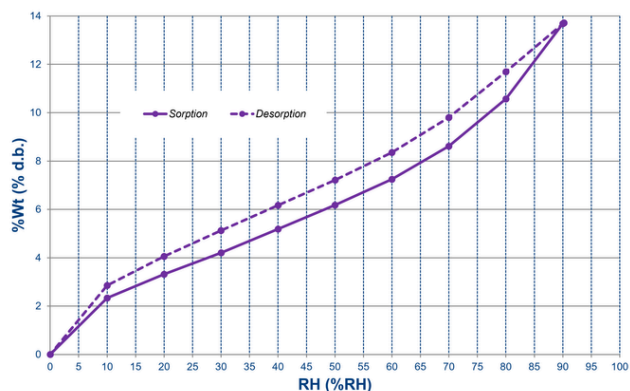
- Built-in 21CFR Part 11 compliance within software
- IQ/OQ options and preventative maintenance packages

**IGAsorp transforms DVS
from a laboratory tool
into a strategic asset for
pharmaceutical
innovation**

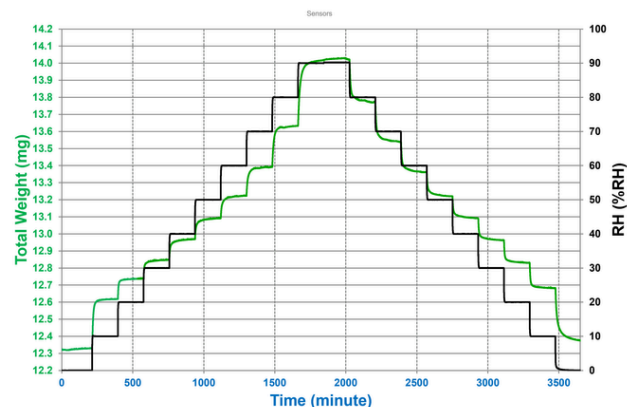


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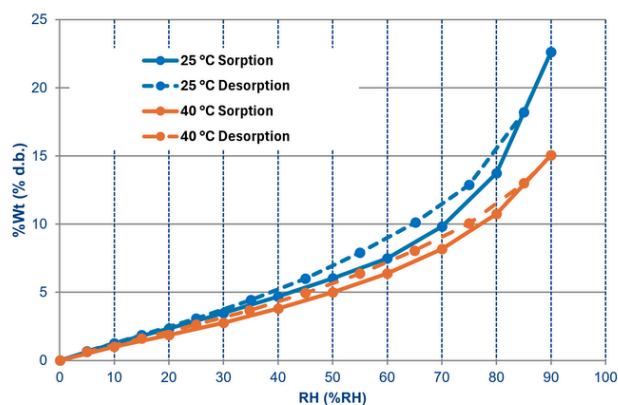
EXAMPLE DATA



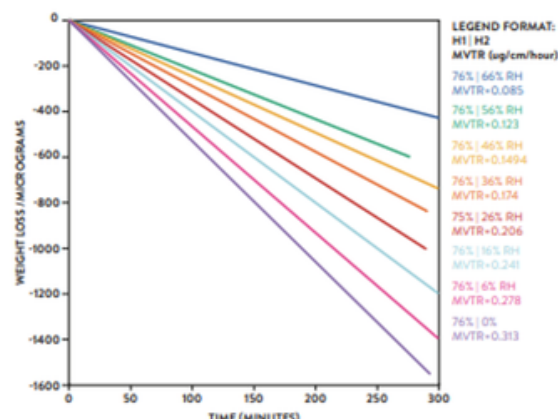
Water sorption-desorption isotherms for microcrystalline cellulose at 25 °C, showing equilibrium between 0 and 90 %RH.



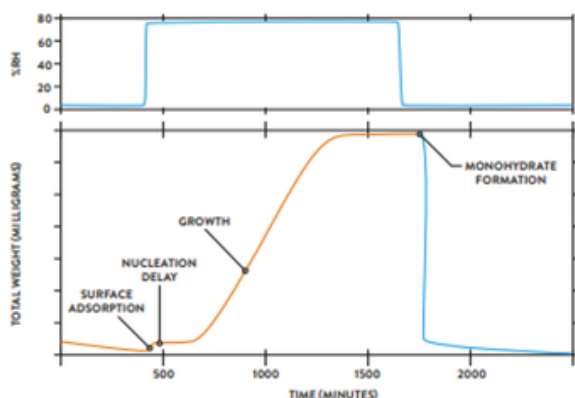
Kinetics data with weight trace (green) showing sorption and subsequent desorption as relative humidity (black) is stepped from 0 %RH to 90 %RH and back down to 0 %RH.



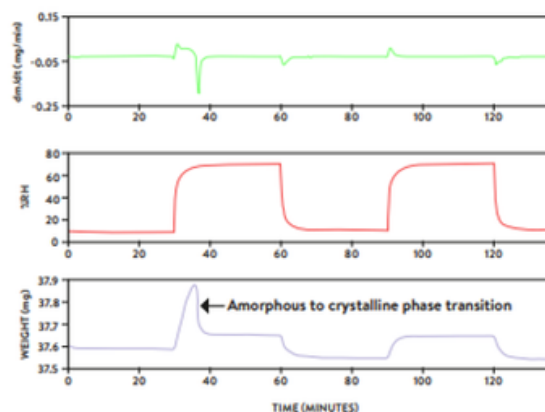
Water sorption - desorption isotherms for hypromellose (HMPC) at 25 °C and 40 °C, showing equilibrium uptake between 0 and 90 %RH.



Moisture Vapor Transmission Rates (MVTRs) measured through a polymer film used in pharmaceutical packaging. H1 is the humidity within the cell, whilst H2 is the external humidity.



Monohydrate formation of a pharmaceutical active ingredient (API) as relative humidity is stepped from 0 to 80 %RH. As soon as the relative humidity is reduced to 0 %RH, the monohydrate becomes unstable and sheds water from its structure.



Amorphous content detection within a pharmaceutical active ingredient. Water is used as a plasticizer and upon stepping relative humidity from 10 to 70 %RH, the amorphous material shows significant moisture uptake before crystallization occurs and the sample weight reduces. The difference between the first and second cycles is indicative of amorphous content.