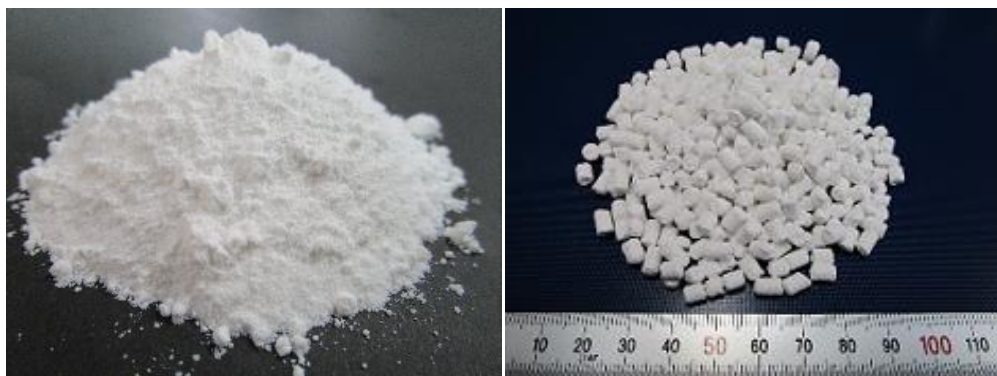


*New Heat Storage Material*

# HASClay™

## ● Features



HASClay™ is an inorganic porous clay-based material.

It is composed of amorphous aluminum silicate and low crystallization clay.

Item	Adsorbent heat storage (High performance grade)	Adsorbent heat storage (General-purpose grade)
Bland	HASClay GI- K (powder) GI- Z (pellet)	HASClay GII- K (powder) GII- Z (pellet)
Heat storage density (Ideal)	Above 1,400 kJ/kg	Above 1,000 kJ/kg
Heat storage density	Above 700 kJ/L	Above 500 kJ/L
Used temperature	80°C~120°C	
SSA (N <sub>2</sub> adsorption)	Above 700 m <sup>2</sup> /g ※HASClay GI-K	Above 550 m <sup>2</sup> /g ※HASClay GII-K
Remarks	Performance and service life vary depending on usage.	

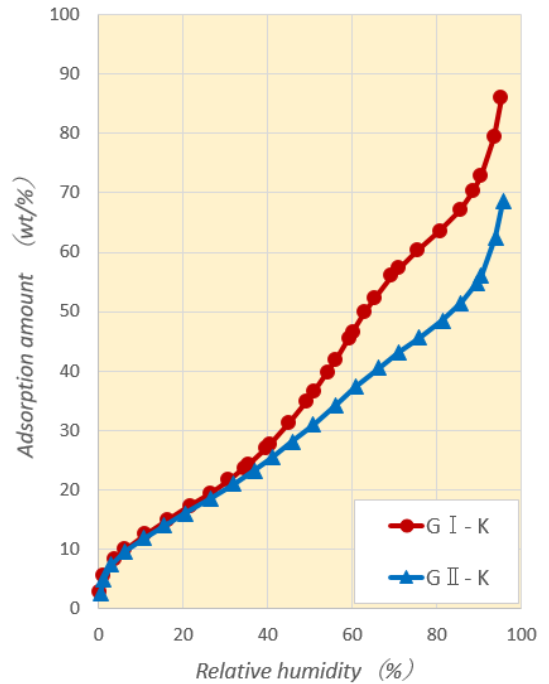
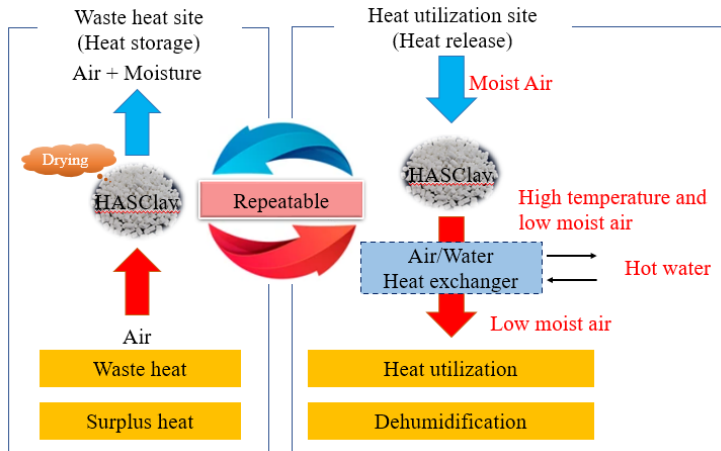
HASClay has higher heat storage density than other materials.

It can use waste heat about 100°C and various usage.

The heat dissipation temperature varies depending on the waste air temperature used for drying, the humidity taken in during heat dissipation and the airflow rate.

## ● Principle of heat storage and heat release

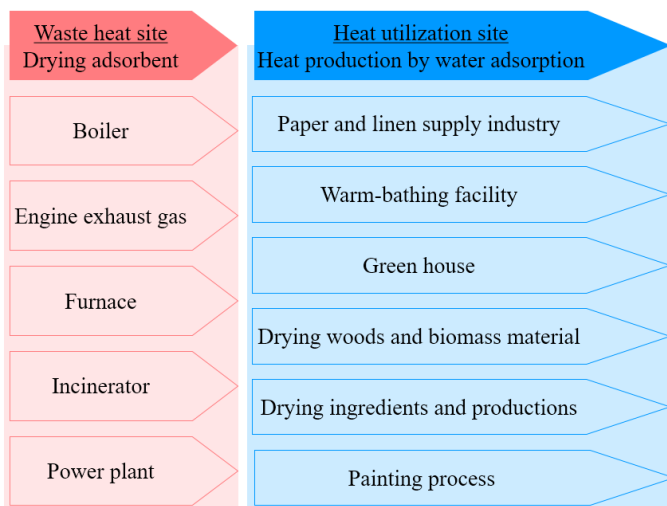
HASClay stores heat when dried and generates heat by adsorbing moisture.



Water vapor adsorption isotherms of various adsorbent.

- ✓ Heat storage of HASClay can support your saving energy and reducing CO2 emissions.
- ✓ There is no heat loss during storage.
- ✓ It can be used as a desiccant material.

## ● Target market



## ● Operation example



Our plant has a new heat storage system that uses waste heat and moist air from the product drying facility.