

# WHAT IS OOBLEK?

IS IT A SOLID? IS IT A LIQUID? OR IS IT SOMETHING IN BETWEEEN?

### **NORMAL MATERIALS**

When substances change state – from solid to liquid to gas – their behaviour changes. This is normally because of a change in temperature; e.g. water goes from ice to liquid to steam.

Their thickness (viscosity) decreases as temperature rises.

### **TEMPERATURE**







**But** for some substances, viscosity also changes with pressure. If you apply a force to these fluids, they can become solid, and vice versa. These are

#### **OOBLEK MATERIALS**

Otherwise known as Non-Newtonian Fluids

## **Examples include**



**Custard** 



Hand cream



Ketchup



Lava



**Ooblek** (cornstarch & water)



**Shampoo** 



**Toothpaste** 



Liquids flow but solids don't!

At a manufacturing plant it is important to understand the way fluids flow in different conditions to make your plant efficient and avoid blockages in pipes, leaks or even explosions!

By understanding these fluids manufacturers can create products more quickly and easier for us to use.

> This is why scientists and engineers study subjects like rheology and fluid dynamics.