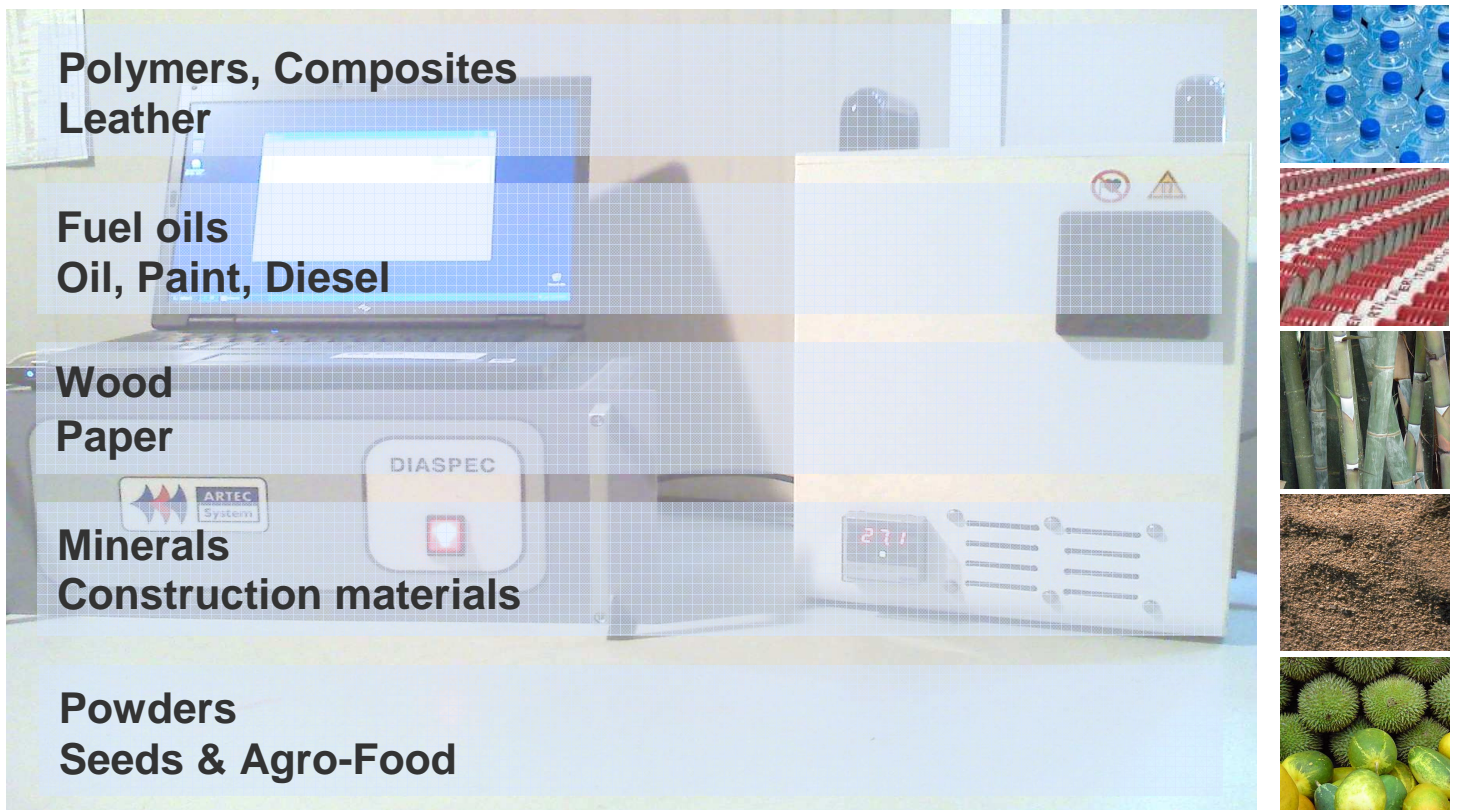


*Up to date technology for non-destructive quality control and real time fast measurement system*

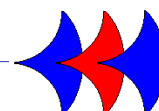
**ARTEC System** has developed two measurement equipment “ DIAMAT & DIASPEC ” based on innovative Magnetic Resonance technologies used for process and quality control; mainly determination of water, moisture, fat and oil content in wide range of products and materials.

Some examples of applications are : foodstuffs, seeds, wood, paper, leather, pet food, coal, polymers, petroleum and gas, etc... This technology is also applied for measuring porosity of rock, core samples, construction materials and powders.



Main and unique features of our products :

- ✓ *Precision up to 0.2%*
- ✓ *Fast measurement process*
- ✓ *Non destruction of sample or material*



## DIAMAT :

## Portable one-sided NMR sensor

**DIAMAT** was designed for on-site testing;

**DIAMAT** is portable NMR equipment used for non-destructive evaluation by immediate measuring of water, moisture oil & fat content in different porous or solid materials, foodstuffs, powders, pastes, emulsions and liquids.

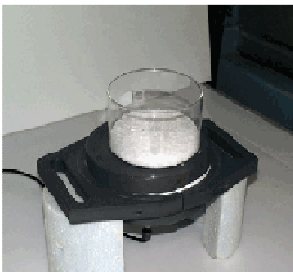
**DIAMAT** is composed of the following parts :



- Portable sensor suitable for on-site testing.
- Transmitter-receiver unit. Communication between computer and electronics is established via USB2 serial bus for pulse programming and data acquisition.
- Portable computer to display measurement parameters and results. Graphical user interface runs with Windows XP.

### **Applications**

- Evaluation of moisture content and distribution in hygroscopic materials (cement, construction materials, wood, paper, leather,...)
- Quality control of foodstuffs, (e.g. meat, cheese, fruits and any other soft materials)
- Archaeological objects expertise, moisture control in building material (e.g. wood, concrete, masonry)
- Detection of water ingress in composite sandwich structures
- Synthetics material : hardening, aging,
- Cosmetics (cream, powders,...)

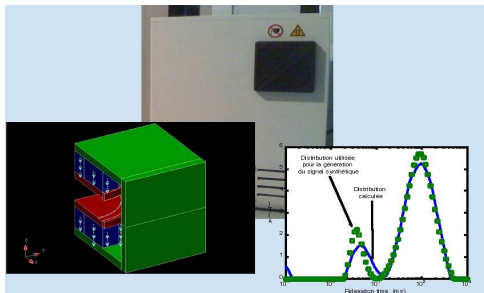


## DIASPEC :

## Low field NMR sensor for quality control

**DIASPEC** is a high performance Magnetic Resonance analyzer that is easy to install, maintain and use.

**DIASPEC** provides **real-time** information used for on-site process control.



NMR measurements allow accurate and repeatable results on wet materials. This method is applicable for samples that have until less than 2% moisture content.

**DIASPEC** complies with standards ISO 10565 for measuring water and oil content in seeds such as sunflower. Several diameters are available from 18 to 42 mm.

**DIASPEC** is composed of the following parts :



- Permanent magnet system sensors.
- Transmitter-receiver unit for pulse generation and measurement.
- Portable computer for monitoring, signal processing and data acquisition.
- ARTEC System software "DIALOG" that runs with Windows XP. Graphical user interface displays measurement parameters and results.

### **Applications**

- Moisture control in powders, crystals, liquids in test tube...