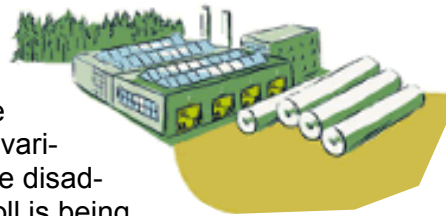# Intelligent Cores

In the paper industry, the paper is wound onto cylindrical hard paper cores for further processing as well as transport. The identification of these products during processing and transport is most often accomplished through bar-code labels. These labels are attached to the outer surface of the rolls. Often several labels are stuck onto rolls with large diameters, so that the rolls are machine-readable from various positions. This kind of material identification has the disadvantage that the labels have to be removed while the roll is being processed. Usually these labels are then saved somewhere, so that if necessary, a post-processing identification can be made.
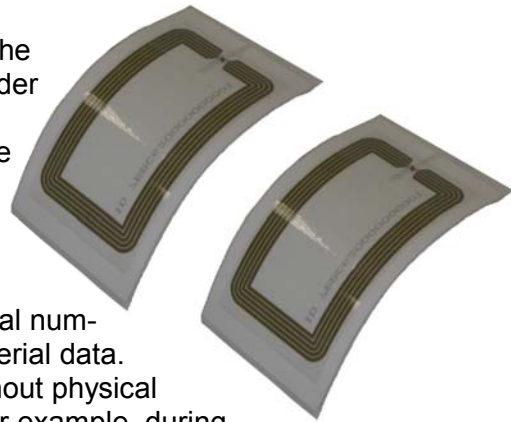
Errors in material transportation lead to delays and higher costs. Errors in material identification lead to mistakes in production and thus also to higher costs.

The IAL Company has a solution to these problems. We have developed an intelligent core outfitted with a serial number and storage capacity for material data.

The paper roll is thus uniquely identifiable until it is completely processed. The link between core and contents is only then dissolved, when the core is empty. When the core is re-used, a new core-material link is created.

Normal transponder labels are integrated into the core: during core manufacturing, the transponder label is wrapped into the core wall. The transponder label is positioned in the core wall, to be protected from external mechanical influences. The label does not wear out. The core can therefore be repeatedly re-used in production.

The transponder is uniquely identified by a serial number. In addition, the transponder can store material data. The transponder data are read and written without physical contact via an antenna. This can take place, for example, during forklift loading at transport, or during the transport itself by driving past an antenna on the loading ramp or other location.

The technology permits a reading distance of up to 1,20 meters. Thus, a paper roll can be uniquely identified while on a processing machine as well as during transport

Using an intelligent cardboard core ensures that your paper rolls are monitored during the entire production process. The intelligent core is an practical addition to IAL´s range of complete logistical solutions.

Take advantage of our experience in the resolution of your logistics tasks.

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