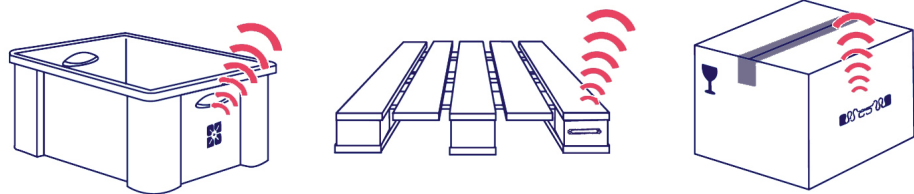


How to choose the right **RFID tag or label** for your project?

In the world of RFID there are a thousand different tags and labels. But which one is best for your project? You need to consider about certain factors like the required performance, the material of the tagged item, the environmental conditions and more when choosing the right RFID tag/label. If you choose the wrong tag, your project can fail. The choice of a suitable RFID tag is essential for the success of your project. We help you choose the best RFID tag for your project in 5 steps.

1. Surface material of the tagged item.

The first question you need to answer is what the surface material is of the tagged item. Is it plastic, wood, glass, metal or another material. In general, RFID tags work well on plastic, wood or cardboard. Items containing metal, glass or liquids are more complex materials to tag because these materials can interfere with the communication between the RFID reader and tag. In your search for suitable RFID labels, you have to check whether a tag is suitable for these materials. Tags that work well on products containing metal, glass or liquid are usually more expensive than typical RFID tags or inlays.

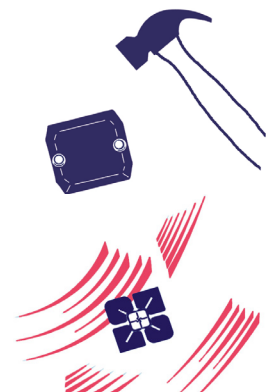


2. Environmental conditions / IP rating

Environmental conditions can affect the reading results of a tag. That's why it is important to evaluate the environmental conditions the tag will be applied in. Questions you need to ask are:

- What are the environmental conditions the tags/labels will be in?
- Do they need to be immune to scratching and beating, making it an ideal choice for RTI (returnable transit item) use? Or do they need to survive a specific temperature?
- Do they need to survive chemical immersion or specific humidity range.

Check the tag's specifications to make sure they meet the environmental conditions of your project. There are many RFID tags developed to survive the harshest environments.



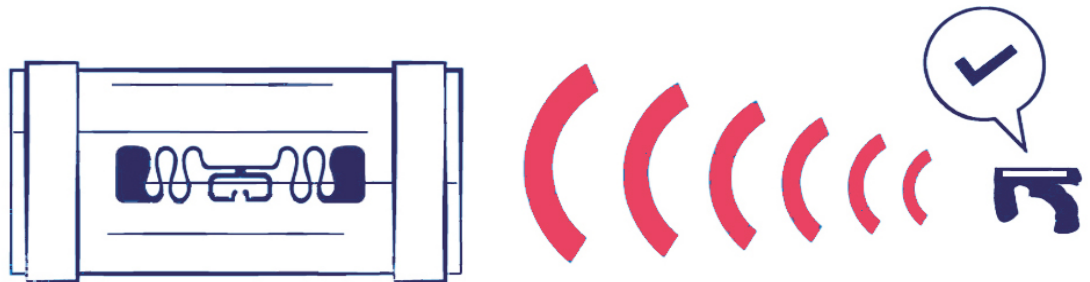
3. Size and read-range of the tag

Size does matter! Generally speaking the size of the tag is related to the read range.

So if you need a read range of several meters, the suitable tag will most probably have a bigger size than if you need a read range of a few centimeters.

However, you also need to consider the available surface area of the tagged item. You may require a certain shape or size to fit a specific space on the tagged item.

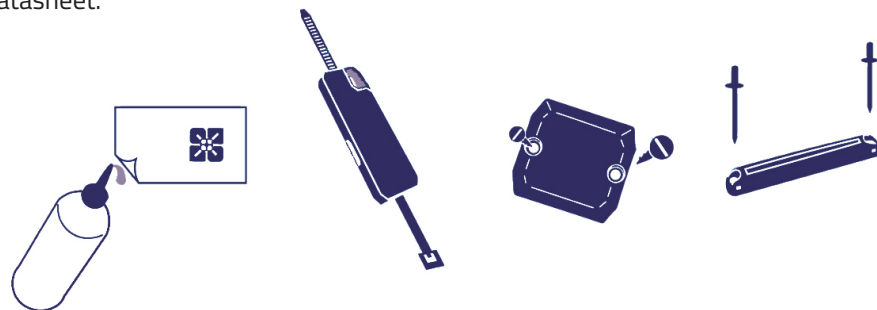
Luckily RFID tags are manufactured in different sizes and shapes so there will always be a RFID tag that meets your requirements.



4. Mounting method

The appropriate mounting method of a tag or label depends upon a few factors. It depends on the material and shape of the tagged item and the environmental conditions.

Some RFID tags and labels come with glue for adhesive fixation, while others can be mounted with cable ties, screws or nails. Attachment methods for tags and labels are typically found within the tag's datasheet.



5. Memory / chip type

The memory size of a tag or label affects the amount of data that can be stored on it. Most RFID tags have a memory size up to 2 kilobytes, sufficient to store some basic information about the item it is on. Most applications don't need extended memory but it is possible to extend the memory size by customizing the tag.



Cisper offers a wide range of RFID tags and labels . Wondering which RFID tags or labels suits your business needs? Our RFID experts can answer all of your questions and help you pick the right RFID tags or labels for your project. Please contact us. We are happy to assist!