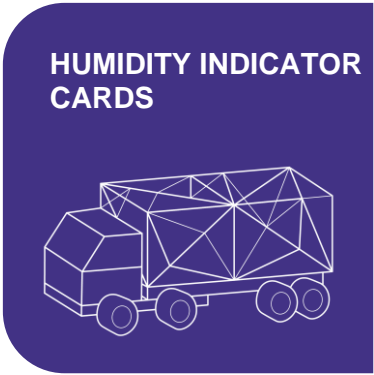


Product Sheet

HUMITECTOR™

HUMIDITY INDICATOR CARDS

**PURPOSE**

With the widest selection of humidity indicator (HI) cards for various industry applications, Humitector™ HI Cards provide simple, reliable, visual indication of the relative humidity within a sealed package or sealed environment.

WHAT ARE THEY?

Humitector Humidity Indicator Cards are small, paper instruments designed to monitor relative humidity levels. Available in numerous configurations, Humitector cards indicate relative humidities as low as 5 percent and as high as 95 percent, depending on the application and need.

There are two main types of humidity indicator cards: reversible and irreversible. **Reversible** humidity indicator cards work much like a thermometer, fluctuating to indicate the current relative humidity level. **Maximum, or irreversible**, cards are designed to indicate the highest relative humidity level to which goods have been exposed.

WHY USE THEM?

High relative humidity levels can cause irreparable damage to sensitive equipment, supplies, products and cargo. As such, many industries have instituted stringent packaging standards to protect goods from moisture as they are transported and stored throughout the supply chain. While many shippers and manufacturers might take the proper steps to protect their products from moisture, such as dry packing with desiccants, it is sometimes difficult to know how effective those steps are. Some products, such as electronic goods, often show no visual sign of moisture damage, while desiccants may reach their adsorption capacity before users realize they need to be replaced.

Humitector HI Cards provide visual proof of the relative humidity level within a given package environment. If the card indicates high levels of humidity, users know to replace their desiccant bags and check their products for possible damage.

Clariant manufactures Humitector cards that comply with numerous industry and environmental standards. Without verifiable color accuracy, quality of devices could be compromised. Humitector cards are colormeter tested for color change accuracy within stringent industry parameters.

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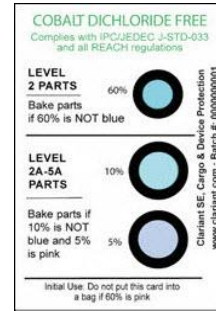
AVAILABLE CONFIGURATIONS

Clariant offers the full range of humidity indicator cards designed to meet virtually every need or industry requirement. Humitector Humidity Indicator Card configurations include:

Cobalt-Dichloride Free (CDF)

- Compliance: JEDEC J-STD-033
- Color Change Indication: Blue-to-Pink

Humitector CDF Humidity Indicator Cards are free of Cobalt-Dichloride (CoCl₂), a chemical which has classification and labeling requirements under the European Chemical Bureau's (ECB) REACH directives.

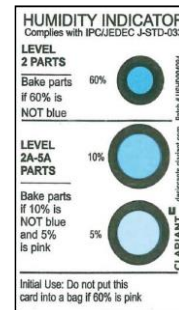


Cobalt-Dichloride Free (CDF)

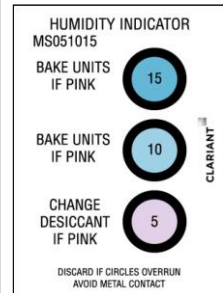
Cobalt-Dichloride

- Compliance: JEDEC J-STD-033, Mil-I-8835
- Color Change Indication: Blue-to-Pink

Humitector Cobalt-Dichloride Humidity Indicator Cards meet relevant military specifications and are standard in many non-REACH applications.



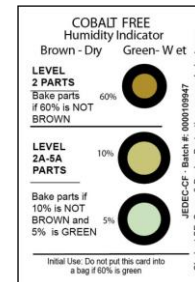
Cobalt-Dichloride



Cobalt Free (CF)

- Color Change Indication: Brown-to-Green

For special applications, Humitector Cobalt Free HI Cards provide a brown-to-green color change and do not contain the heavy metal cobalt.

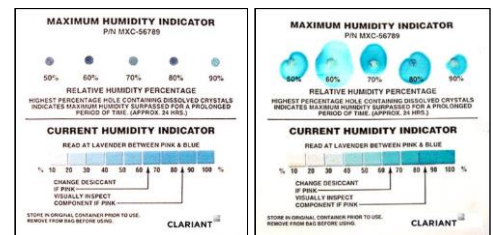


Cobalt Free (CF)

Maximum HI Cards (Irreversible)

- Indication: Dissolution of Crystal

Humitector Maximum Humidity Indicator Cards offer a simple, cost-effective and accurate method of recording the maximum relative humidity level reached during storage or transport. Each level of humidity is represented by a blue crystal that dissolves to create a large blue spot that clearly indicates the relative humidity level that has been reached. Custom printed cards that include company names and logos, as well as product-specific "ideal range" humidity markings, are also available.



Maximum (Irreversible)

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