## CHEMTEQ

Humidity Breakthrough Indicator Inline Humidity BTI Inline

(PN: 615)



SPECIFICATIONS



## 1. Application

The Humidity Breakthrough Indicator In-line, BTI Inline, (PN: 615) is qualitative and qualitative colorimetric indicator for the end-of-service life of filters. It is designed to provide real-time indication of the breakthrough of water vapor.

## 2. Specifications

a. Weight: 28g (1.0oz) b. Inlet & outlet dimensions: %" MNPT

c. Operating temperature: 0°C to 65°C (32°F to 149°F)

d. Minimum detectable limit: 15µg/cm³ (50%RH at 23°C) in 20 minutes at 30cm/min air

flow\*

e. Color change: See figure 1

f. Storage temperature: 4°C to 25°C, (39°F to 77°F)

g. Shelf life: 1 years at 4°C to 25°C, (39°F to 77°F)

h. Service life: 1 year
i. Light effect: None

\* At certain percentage relative humidity (%RH), absolute humidity ( $\mu g/cm^3$ ) varies significantly with temperature and accordingly the indicator response time. For example, at 50% RH and 10°C, absolute humidity is  $4.7\mu g/cm^3$ . Accordingly, it takes the indicator 46 minutes to show noticeable color change, whereas at 50% RH and 35°C, absolute humidity is  $19.7\mu g/cm^3$ . Accordingly, it takes the indicator 10 minutes to show noticeable color change.

Cross interferences: No interferences are known.

## 3. Operating Instructions

- a. Ensure that packaging pouch is intact.
- b. Open packaging pouch by tearing off the top part from one of side notches.
- c. Remove the Breakthrough Indicator from the packaging pouch.
- d. Remove the 1/2" threaded plugs from inline tubing.
- e. Remove the protective red plugs to activate the breakthrough indicator.
- f. Thread the Breakthrough Indicator into the 1/2" threaded inline tubing.



g. Replace filter when the Breakthrough Indicator changes color to pink (Figure 1).

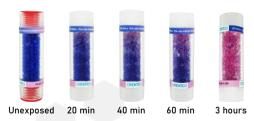


Figure 1: Exposures to 15ug/cm3 water vapor

